Lumleian Lectures
ON
SOME POINTS IN THE NATURAL HISTORY OF PRIMITIVE DRY PLEURISIES.

Delivered before the Royal College of Physicians,

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LECTURE I.

MR. PRESIDENT AND GENTLEMEN,—I purpose in this and the following lectures to consider some points in the natural history of primitive dry pleurisies. Upon secondary pleurisies, upon pleurisies provoked by pneumonia, pyæmic blocks, tubercle and neoplasms of every sort, it is not at present my intention to dwell. By a dry pleurisy I mean such an inflammation of the pleura as issues in an exudation of lymph into the substance and upon the surface of the membrane unaccompanied by an amount of serous effusion sufficient to yield physical signs conclusive of its presence. Entering upon this inquiry, we are met by the question, Do such pleurisies exist? and on the side of affirmation, as well as on the side of denial, are ranged some of the highest authorities in medicine. Even when it has been admitted by the weight of evidence that dry pleurisies are pathological as well as clinical entities, their influence in originating secondary disease of the lung has been hotly contested. From the days of Laennec until now the most opposite opinions upon this subject have been advanced; and whilst one leader has declared primitive dry pleurisies to be mere clinical curiosities, another has asserted that they invade the lung and produce secondary and serious changes therein. The study of this controversy is at once sad and edifying; for whilst it shows us, even in the highest order of minds, how difficult it is, in the search for knowledge, to be in the philosophic sense impersonal, it makes plain to us the puerility as well as the peril of dogmatism and of finality in scientific statements. The scope of my inquiry is narrow, and the results of it are but few and imperfect. Nevertheless, I indulge the hope that they will not be found entirely useless, since, whatever may be thought of the inferences drawn from the cases forming the subject of this inquiry, the cases themselves will remain for future study; and, touching one of the most important questions of the age in which we live, may excite to fresh investigation others more qualified than I am to pursue it with profit. Furthermore, it will be to many disappointing to find that the direction of my inquiry will make it more interesting to the student of clinical medicine than to the student of pathological histology. But herein may lie the justification of my small endeavours; for whilst I remember that the traditions of this College make it sacred to the advancement of knowledge for its own sake, I cannot forget that they make it also sacred to the forcing of that knowledge into fruit for the uses of man.

In the present lecture I shall set forth the grounds which have led to the institution of this inquiry. In the second lecture I shall consider the anatomical constitution of dry pleurisies, their varieties, the changes which they undergo, and the influence which they exert on the evolution of pathological changes in the lung. In the third and last lecture I shall relate, in as far as they are known to me, the clinical peculiarities of the chief affections of the lung originating from dry pleurisies, and I shall conclude with a series of propositions which appear to be justified by the facts collected in the course of this inquiry.

In proceeding to set forth the grounds of this investigation, I find myself embarrassed by the number and variety of materials at my command. A critical examination, however, soon makes it plain that they fall naturally into groups, that the groups may be arranged in the order of an increasing complexity and importance, and that a single instance selected from each group will fairly represent the whole. Now, the grounds of this inquiry are, in the first instance, cases, and I have collected and related them in abstract with as much care as I could command. Nevertheless, they are all of them in varying degrees incomplete, and in some few particulars they may be even inaccurate. For a literal and sustained accuracy in narration is one of the rarest gifts granted to men; and the difficulties encountered in relating a case, and in recording its progress with minuteness and exactitude over a period of years, are so great that I cannot understand how, unless exceptionally, they are so commonly and easily overcome. Furthermore, after long study of a case, the sum of our knowledge of it comes to be made up partly of bare facts capable of literal record, partly of complex facts into the account of which our own subjectivity more or less largely enters, and partly of subjective impressions which, if they do not actually combine with the naked facts, so colour them that sometimes they are practically transfigured. I recognise this peril, from which I suspect no one is wholly privileged; and I have endeavoured in the narration of my cases to purge them of subjective adulterations, and to present them in their baldest objective forms. But to say that I have been entirely successful, would be to assume that I am more than entirely human. Lastly, the cases are not related in chronological order; but they are related in such order as seems best calculated to set forth the progress of primitive dry pleurisies, and the ways in which they invade, alter, and destroy the lungs.

CASE 1.—In 1866 I was consulted by a gentleman, thirty-five years of age, married, a traveller, and of somewhat irregular habits. He was fair and moderately nourished, but looked pale and ill. His family history was good; and of his personal history he said that he remembered having suffered from no special complaint, but that latterly he had been often ailing and sometimes "rheumatic." He consulted me on account of an odd feeling which he had in his left side, and described it as "resembling the movement of something out of joint." On examination, I found a grating pleural friction round the whole base of the left lung; but neither in the upper part of that lung, nor in any part of the right lung, could other indications of disease be discovered. Except in the region of pleural friction the breath sounds, the vocal resonance, and the percussion were normal. There was neither cough nor expectoration, but deep breathing produced general discomfort in the left side; there was no constitutional disturbance; and, beyond a slight gastro-hepatic catarrh, no signs of disorder elsewhere. Two months later the pleural friction had extended to the whole lower half of the left lung, but no material change had occurred in the local or general condition of the patient. Twelve months after the first examination the patient had failed in general health and suffered from a little cough, mucoid expectoration, and breathlessness on exertion. Pleural friction and creaking were heard at places throughout the lower third of the left lung. A superficial crackling or crepitation could be evoked by deep breathing or coughing; vocal resonance was diminished; there was dulness on percussion, and the tactile vocal fremitus was feeble. The lower part of the side appeared to be slightly contracted; the cardiac impulse was visible under the left nipple; the right ventricle was slightly dilated; the pulse was 76; the temperature was normal; and there was no evening fever. I did not see this case again; but a year afterwards I heard that he had been for a few months insane; that his chest had given no signs of trouble, and that he had just emigrated to New Zealand.

CASE 2.[1]—In February, 1874, Mr. Hutchinson requested me to examine, in his wards, a man who had somewhat suddenly developed pulmonary symptoms of an obscure kind. The patient was thirty-four years of age, tall, well built, and well nourished. He complained merely of urgent dyspnœa. His face was dusky and expressive of great anxiety. He breathed with great difficulty and labour; the thorax appeared to be inflated and incapable of complete recoil on expiration; the veins of the neck were distended; the skin was of a bluish tint; and the extremities were cold and damp. Examination of the chest yielded few definite results. There was nowhere dulness on percussion or any recognisable change in the tactile vocal fremitus. Everywhere the breath sounds were loud, harsh blowing, and here and there accompanied by a fine and moist or a rustling and dry crepitation. Throughout the axillary region of the right side and over the lower two-thirds of the back there was heard a superficial moist crackle or large crepitation, sometimes replaced by friction. Like sounds were heard in disseminated circumscribed patches in corresponding regions of the opposite

[1] See Appendix, Note 1.

side. The action of the heart was rapid and irregular; epigastric pulsation was strongly marked; the pulse was small and running; the temperature was under 100°. The tongue was swollen, furred, and bluish; the abdomen was distended; the bowels were confined; the scanty urine was loaded with purple lithates and free from albumen. The patient was restless, had slept little, and was occasionally delirious. On the day following my examination he died. After death both lungs were found to be emphysematous. The greater part of the right pulmonary pleura was coated with a thickish layer of loose, soft, reticularly arranged lymph more or less adherent to the subjacent membrane, and containing in its meshes a turbid, yellowish, glutinous fluid. Both the lymph and the subpleural areolar tissue were studded with small extravasations of blood. In the lung immediately beneath the pleura were narrow, irregular, and interrupted tracts of pneumonic consolidation. Similar appearances to a much less extent were found on the pleura and in the lung of the opposite side. The heart was dilated and somewhat soft. The valves and their corresponding orifices were free. In a few of the smallest branches of the pulmonary artery plugs were found.

CASE 3.—In January, 1873, Dr. Stephen Mackenzie called my attention to a patient in Harrison Ward of the London Hospital. He was about thirty years of age, tall, florid, thin, and healthy looking. He had been admitted for bronchitis and gastric catarrh. As the bronchial attack subsided and its attendant râles disappeared, there was noticed all over the right side a very superficial crackling and crepitation. It was just recognisable by the hand placed lightly over the side; it was little influenced by deep breathing or by coughing; and when listening with the stethoscope the impression made upon the mind was that the crackling was produced either in the walls of the chest or in the parts immediately subjacent. After a few weeks the patient was discharged from the hospital at his own request. He was in all respects well, except that the superficial crackling and crepitation remained unaltered. A year afterwards this patient was readmitted into the hospital. I did not myself see him on that occasion, but I was told that he had had a slight bronchial attack; that after its subsidence the right lung was found in the same state as before, and that the left lung was unaffected. In 1876 I had an opportunity of re-examining the patient. Except for a slight cough, mucous expectoration, and shortness of breath on exertion, he was fairly well, and able to follow his work. The left lung was quite free from any signs of disease. The right side moved less freely in breathing, looked slightly flattened and contracted, and the cardiac impulse was near the sternum below the cartilage of the fourth rib. Over the lower third from the front of the axillary region to the spine there were marked dulness, diminution of tactile vocal fremitus, feeble breath sounds, and impaired vocal resonance. During forced inspiration, practised after coughing, there could be heard in places creaking or obscure friction and some deeper sounding coarse moist crepitation. There was no notable change in the condition of the heart. The pulse was under 80. The temperature was slightly subnormal.

CASE 4.—In June, 1875, I was consulted by a young man for cough, expectoration, and pain in the right side. He was eighteen years of age, tall, and moderately nourished. The family history was good. Fourteen months before his visits he contracted a right pleurisy, and since then his chest had not been well. Nothing abnormal was discovered in the digestive, circulatory, genito-urinary, or nervous systems. On examining the chest, it was found that the cardiac impulse fell between the fifth and sixth ribs two inches in front of the nipple. The heart's action was strong and regular; the pulse was 68. The temperature was normal. The left side was normal in form and movement. The right side was slightly flattened, moved less freely on inspiration, and, except at the upper fourth, was dull on percussion. The tactile vocal fremitus was unaltered. Auscultation revealed in the dull region superficial creaking leather sounds, bronchial breathing, increase vocal resonance, superficial clicking, and large moist crepitation. This patient went to South Africa. I saw him two years afterwards on his return to England, and he declared himself to be quite well. A careful examination brought to light no evidence of disease except in the right side of the thorax, which was flattened, contracted, and a little twisted. The corresponding shoulder was depressed, whilst the lower angle of the scapula projected outwards from the ribs. Over the lower four-fifths of the right lung there was complete dulness on percussion, diminished tactile vocal fremitus, feeble breath sounds, no râles, and much impaired vocal resonance. During forced inspiration, creaking and sometimes little grating sounds were heard. I have not seen the patient again.[2]

CASE 5.—This was the case of an unmarried American gentleman, fifty-two years of age, a patient of Prof. Pepper of Philadelphia, who had recommended him to go to England for the benefit of change. He complained of general ill-health, of a nearly dry teasing cough, of shortness of breath, weakness, and indigestion. He was pale, thin, anxious-looking, depressed, and supposed to have had syphilis at a date not recorded. The illness for which I was consulted began in 1877, with an obstinate and incoercible right dry pleurisy. He went to Colorado, Florida, and the Sandwich Islands, with no resulting benefit. Subsequently he visited Toronto, and there began to improve. At the time of examination the patient was suffering from gastric catarrh, and had a suspicious-looking ragged ulcer, about the size of a sixpence, on the posterior wall of the rectum, within an inch of the anus. The urine was of fair density, and slightly albuminous. The heart was beating feebly a little to the right of its normal situation; there were no murmurs; the pulse was 84, small and compressible; temperature normal. The left lung on examination yielded no signs of disease. The right side of the thorax was a little flattened, and on inspiration moved much less freely than the left. Over the lower two-thirds, and chiefly from the anterior border of the axillary region to the spine, there were almost complete dulness on percussion, diminished tactile vocal fremitus, feeble and irregular breath sounds, slightly increased vocal resonance, and no râles. Deep forcible inspirations brought out superficial rustling crepitation, creaking leather sounds, and at one or two parts grating friction. Patient complained of general pains which disturbed his sleep, and of stiffness and achings of the joints. Nine months afterwards I re-examined the patient. His general health was much improved, but the condition of the right lung was unaltered, and there was still a trace of albumen in the urine.

CASE 6.—For this case I am indebted to the kindness of Dr. Goodhart. Unfortunately no dates are given in the record. Nine years before death the patient was admitted into Guy's Hospital for chronic interstitial nephritis. Soon afterwards he had an attack of right dry pleurisy, followed by hæmaturia. Four years, and again two years, before death the patient had hæmoptysis. The physical signs were reported to be those of bronchitis and of phthisis. The patient died unexpectedly and suddenly, with signs of failing action of the kidneys. On inspection after death it was found that the right lung was surrounded by a greatly thickened pleura, at some parts a third of an inch in thickness; that the whole upper lobe was converted into a mass of fibroid tissue, traversed by slightly dilated bronchial tubes; and that it seemed as if the fibroid invasion had arisen in and extended from the inflamed pleura. Part of the lower lobe was simply collapsed and penetrated by tracts or bands of fibroid tissue, which, starting from the pleura, were lost in the lung. A similar, but less advanced condition, existed in the summit of the left lung. The heart weighed eleven and a half ounces; two of the aortic valves had fused into one, and the third was enlarged. The kidneys were slightly granular on the surface, but there was no marked cortical wasting. There were, however, some recent epithelial changes and intertubular congestion.

CASE 7.—This case occurred in a gentleman seventy-six years of age, whose family was reported to be free from any taint of phthisis. Summoned in 1870 to see him on account of a small recurring hæmoptysis, I was informed that at about eighteen he had had a right pleurisy which "persisted in a curious way" for many months; that almost ever since that time he had suffered from his chest; that he had had several attacks of hæmoptysis; that he was liable to frequent and severe colds; and that notwithstanding these facts his general health had been fairly good, and he had been between his attacks equal to the ordinary duties and enjoyments of life. The attack of hæmoptysis having ceased in a few days, I was able to examine the chest with some care. The heart was found to be beating against the cartilage of the third rib on the right side. This was flattened and irregularly retracted; the shoulder was depressed; the scapula at its lower part projected outwards from the ribs; the neck was swollen and its superficial veins were distended and

[2] See Appendix, Note 2.

tortuous; and here, as well as in the face, the skin was of a pale dull leaden hue. The whole side, front and back, except at the apex, was dull on percussion, the tactile vocal fremitus was rather increased; the breath sounds were of the hollow bronchial variety, loud, harsh, and blowing; there was no vesicular breathing, but instead of it there were large, moist, gurgling rhonchi; and the vocal resonance along the course of the bronchial tubes was bronchophonic and almost pectoriloquous. At the base of the lung the physical signs were of a similar character, but much less advanced. Over the summit of the lung the tactile vocal resonance was diminished; the breath sounds, though feeble and harsh, were of the normal type; and the vocal resonance, except at the inner end of the clavicle, was diminished. The percussion note over the summit of the lung was of a tubular character, and resembled the sound which, in children, one can elicit by tapping the upper part of a lung, the lower part of which is surrounded by fluid. The left side was enlarged, rounded, and moved fully and freely on inspiration. Tactile vocal fremitus was everywhere distinct; the percussion note was more than naturally clear and resonant; the breath sounds, the vocal resonance, the respiratory rhythm, and the pleural movements were everywhere normal. Six weeks after the first I made a second examination of the patient when he had returned to his normal state. I found that he suffered from a slight catarrhal dyspepsia; that the urine, of low density, contained always a little albumen; that he had a habitual slight cough with muco-purulent expectoration; that when he was struck with a severe bronchial attack the cough became paroxysmal and ended in vomiting; and that he suffered from time to time with pains about the right shoulder and side. During this examination I heard but few râles; but a creaking leather sound—a sound as of the creaking of a new saddle—was clearly audible during deep inspiration. I did not again see this gentleman, who subsequently died of bronchitis, under the care of Messrs. Huxley and Nankivell at Torquay. Since these notes were written I have learned from Dr. Toogood many interesting particulars of this patient's case. Chief among them is the circumstance that the patient suffered occasionally from attacks of dry pleurisy on the right side.

CASE 8.—In the early part of 1870 I was summoned to see a gentleman complaining of pain in the lower part of the left side, which he considered to be an attack of internal gout. The patient was sixty years of age, tall, thin, and somewhat infirm, but vivacious. He had suffered from regular attacks of gout for many years, until the last five years, when the attacks became irregular, and when, as the patient alleged, instead of occurring in the foot or hand, they occurred in the lower or back part of the left side. On examining the chest, I found slight dulness over the lower and back part of the left side, increased tactile vocal fremitus, harsh grating friction, feeble breath sounds, and slightly modified vocal resonance. The patient was himself conscious of the pleural friction, and it could be felt by the hand laid lightly on the chest. Nothing abnormal was discovered in the right lung. There were uneasiness in the left side and shoulder, pain and slight cough on deep inspiration, some slight difficulty of breathing on exertion, and a little viscid, frothy expectoration discharged with difficulty. The heart was large, weak, irregular, and murmurish in the mitral area; the arteries were slightly thick. The patient suffered a good deal from indigestion. The bowels were sluggish. The urine had a density of 1018, frequently deposited showers of uric acid, and contained traces of albumen. There were no signs of disease in the nervous system. The skin was for the most part harsh and dry, but now and then there were partial sweatings. The hands and feet were deformed by repeated attacks of gout. The patient was a generous liver, and dined almost daily *à la mode* in the company of his friends. The patient continued in much the same condition until June, when he went to the south of England, and I lost sight of him for two years. During his absence it was said that his chest was quite well, but that he had had repeated attacks of ordinary gout. Towards the close of 1872 I was again summoned to see this gentleman in London, and I found him in every way worse. He had frequent paroxysms of cough, ending partly by cough, partly by vomiting in the expectoration of a fetid muco-purulent matter often stained with blood; he was breathless on exertion, and he had pain, aggravated by coughing, round the base of the right lung. The sputum contained areolæ of elastic tissue, and made sure the diagnosis of an excavation in the lung. The whole base of the left lung was now completely dull on percussion, the tactile vocal fremitus was diminished, and, except at one point about to be noticed, the breath sounds were feeble and the vocal resonance diminished. At the point excepted in the middle of the posterior base, and a little way above the upper limit of hepatic dulness, the breath sounds were cavernous and the voice bronchophonic. Occasionally either no cavernous breathing was heard in this locality, or else there were bubbling or gurgling râles. Immediately after free expectoration the breath sounds were hollow; some hours afterwards, and before the occurrence of a paroxysm of coughing, auscultation gave no evidence of the presence of a cavity. The right lung was entirely free from any sign of disease. The heart, drawn a little upwards, was weak, irregular, and indistinctly felt. The pulse, frequent and quick, beat over a hundred times a minute. There was not only no elevation of temperature, but the temperature, unless on exceptional occasions, varied from one to two and a half degrees below the standard of health. The digestion was much disturbed, the bowels were obstinately confined, and the patient was troubled with hæmorrhoids. The urine was now abundant and pale; it contained habitually traces of albumen, but there were no casts. The patient was thin, weak, ailing. The face and particularly the eyelids were puffy. The finger ends were swollen. The superficial cervical veins were distended. The skin was yellowish and dry. There had been no serious attack of external gout for many months. The nervous system was unstrung and the temper had become irritable. The nights were restless and vaso-motor storms were frequent. On this occasion I saw the patient only twice or thrice. He did not improve much, and thinking that he needed more frequent relays of food and more ample supplies of wine than my regulations for management permitted, he sought the advice of another physician who understood his constitution better than I, and who held more liberal views respecting its management. In 1875 the patient again came under my care. He was thin, weak, and worn; his feet and legs were œdematous; he was depressed in spirits and irritable in temper; his nights were sleepless and his days distressed by frequent paroxysms of exhausting cough. The expectoration was abundant, muco-purulent, and sometimes almost unbearably fetid. On occasions the fetor disappeared for days and the expectoration consisted only of a frothy viscid or watery mucus, dotted with tiny pellets of pus or of blood. His breathing, always short and shallow, turned into distressing breathlessness when he ascended a flight of stairs. The digestive organs were greatly disordered, flatulent attacks with palpitations were frequent, the bowels were irregular, and the urine, having a density of 1012, contained about 5 per cent. of albumen but no casts. The skin, harsh and dry, had a pale-bluish or leaden tint. The eyelids were œdematous and the right side of the neck and chest as well as the right upper arm were traversed by gorged and tortuous veins. The heart, drawn upwards and outwards, lay behind the third rib, its action was weak and irregular, and, in addition to a low-pitched murmur in the mitral area, there was a loud roaring systolic bruit close to the cartilage of the third rib at its junction with the sternum, and thence along the course of the aorta. About this time Mr. G. W. Mackenzie was associated with me in the charge of the case, and to his skill, judgment, and firmness was due the improvement which subsequently occurred in the patient's condition. By careful management, chiefly hygienic, the patient improved greatly in general health; but the signs of local lung disease, although quiet, persisted. Returning to the duties and pleasures of society and continuing therein, the patient in autumn caught a severe cold. This was followed by small attacks of generalised gout, an increase of albumen in the urine, œdema of both lower extremities and failure of general health. Again, after a time the general condition of the patient improved; but as the bronchial catarrh persisted, and as there were evidences in the sputum of advancing lung disease, the patient was sent to Torquay, and placed under the care of Dr. Usher Huxley. There for some months the condition of the patient's chest improved; and with the exception of daily paroxysms of cough ending in vomiting, habitual but scarcely felt breathlessness, and occasional attacks of irregular and tumultuous action of the heart, the patient suffered little and enjoyed his limited life. On a certain day, however, he having got chilled, he began to have irregular accessions of fever. The appetite failed,

the albumen in the urine increased, a pleuritic effusion appeared in the right side, the breathing became oppressed, the heart slowly failed, and the patient, falling into a state of stupor, died. To Dr. Usher Huxley I am indebted for an account of the autopsy, and for that part of the affected lung which included the naked-eye evidences of disease. The base of the left lung was surrounded by several layers of adventitious pleural membranes, varying in consistence and character. The innermost of these layers appeared to extend through the interlobular fissures, and along the bloodvessels into the substance of the lungs, which was hard, tough, dark, and cut with difficulty. Within an inch of the posterior surface of the lung, and near its base, were two irregular cavities, containing blood-stained purulent matter. The walls of both cavities were shaggy, and in the immediate neighbourhood of one of them were a few small knots of fibroid tissue, about the size of hemp-seed. There were no bronchial dilatations. The bloodvessels were everywhere thickened. The lymphatics of the interlobular fissures were here and there swollen, knotted or saccular, and contained at some parts small clots, and at others masses of a cheesy consistence and aspect. The upper part of the lung contained no deposits of any kind. The free margins and isolated central portions of the lung were emphysematous. The pleura investing the summit was much thickened. Except for patches of pleural thickening, the right lung was apparently unaffected by disease. The heart was dilated and soft; the valves were roughened; and the aorta was atheromatous and slightly dilated. The kidneys were congested, the capsules adherent, and the cortex granular. Nothing of the nature of tubercle as ordinarily understood was anywhere found.

CASE 9.—In 1866 a man was admitted into the London Hospital, and placed under my care, complaining of severe pain in the lower part of the right side, passing upwards as high as the nipple and downwards as far as the umbilicus. He was twenty-three years of age, tall, dark, thin, and by occupation a costermonger. There was no family history of phthisis, and the patient himself had enjoyed good health until the appearance of the illness for which he had been admitted. He confessed, however, to the habitual and free use of alcoholic beverages. A week before admission the patient had a rigor, followed by severe pain in the right side, cough, fever, and considerable prostration. The whole facts of this case were carefully studied and recorded by my colleague, then my clinical clerk, Mr. J. M'Carthy. From his notes I have extracted all that seemed to bear directly upon my present purpose. The patient complained of dry cough, of pain in the right side, made excruciating by coughing or by deep inspiration, of loss of appetite, and of great prostration. The lower part of the right side moved imperfectly on inspiration. The tactile vocal fremitus was slightly diminished. There was no marked dulness on percussion. Over the whole base could be heard with the stethoscope pleural friction, superficial moist crackling, and, at scattered circumscribed places, bronchial breathing with increased vocal resonance. Between those places the respiratory sounds were rather feebly heard through the crackling and friction. Examination of the upper part of the lung yielded no signs of disease beyond a few mucous râles. The left lung was apparently healthy. The heart's action, unaccompanied by any abnormal sound, was frequent and weak. The pulse 110, small and compressible. The temperature 103°. The tongue was loaded; the bowels were confined; the urine was scanty, and deposited purple lithates. The patient looked and felt very ill. After a week he had frequent distressing cough with muco-purulent expectoration, and occasional attacks of dyspnœa, with severe pain in the right side. The physical signs remained practically unaltered. Fever continued, and the patient took little food, had restless nights, and was extremely prostrate. At the end of a month he was much worse. The physical signs, still of the same general character, had extended to the whole lower third of the right side, and there was extreme tenderness over the hepatic region. Coarse, moist crepitation, with mucous râles, was heard throughout both lungs. There were harassing cough, thin muco-purulent expectoration, and occasional attacks of breathlessness in the midst of shallow and painful respirations. The pulse was 120; the temperature at night 104°; there were occasional chills during the day, and sometimes profuse sweats at night. The patient lay upon his back, took little food, and expressed himself as very ill. The tongue was loaded and the breath fetid. Constipation alternated with diarrhœa, and light with dark fæces. The urine, more abundant in quantity, contained a little albumen. Exploration of the right side with a fine trocar showed that there was no free fluid in the pleural sac. Several physicians who at this time examined the case suspected it to be one of acute tuberculosis, with secondary pleuro-pneumonia of the base of the right lung. Before the patient's death, about two months after admission, new physical signs arose in the base of the right lung, two inches below the nipple. Over a circumscribed space, dull on percussion, there were heard cavernous breathing, pectoriloquy, and on coughing a hollow gurgling rhonchus. After death it was found that the structural evidences of disease were confined almost entirely to the lower third of the right lung and the upper surface of the liver. The base of the lung was surrounded by a thick layer of loose, yellowish, soft, and almost diffluent lymph, infiltrated at parts by a fluid resembling pus, but composed of degenerating cells of various forms, with glandular débris. The old membranous exudations in contact with the pleura were quite firm, and could be traced throughout the lower part of the lung in two forms: as white, tough, intersecting bands, and as a dense, hard, almost formless fibroid infiltration. At the lower part of the base, near the anterior surface, there were found pyriform bronchial dilatation and one or two minute cavities. Throughout the intercurrent portions of lung two different structural changes were visible. The first consisted of disseminated, rounded caseous lumps, for the most part confined within the limits of the pulmonary lobules, but sometimes extending beyond them. Histologically the lumps resembled the consolidations begotten in caseous pneumonia, and were at one or two points melting into excavations. The second kind of structural change was due to the presence, in small numbers, of spheroidal greyish or yellowish bodies, about the size of hemp-seed and resembling tubercles. They had not, however, the arrangement of parts and structural characters of veritable tubercle. They were divisible into two groups; the members of one group were mere knots of fibroid tissue; the members of the other appeared to consist of choked and distended lymphatic spaces, traversed by an adenoid reticulum. In the abundant soft lymph lying between the under surface of the lung and the diaphragm there was found an abscess about the size of a large walnut, and this abscess could be followed through the diaphragm into the liver, where there existed another abscess of a like size and character. Round about this abscess, and within the space of an inch from it, were several spheroidal masses, each about the size of a very small cherry, of a yellowish colour, and not unlike the caseous lumps in the lung. In the pleura of the under surface of the lung, in contact with the soft diffluent lymph, I observed, and recorded with illustrations in my work-book, the presence of cup-shaped depressions, bordered and lined with flattened nucleated epithelial cells. I did not at the time of examination understand the nature of these bodies, and was disposed to regard them as mere alveoli of mechanical production. The researches of Rechlinghausen, Ludwig, and Klein make it now probable that these bodies were temporary or permanent stomata. Besides these stomata communicating with lymphatic spaces, there were found other minute openings leading by tortuous channels into the pulmonary parenchyma. Nothing of importance was found in any of the other organs or tissues of the body.

CASE 10.—In May, 1878, a gentleman consulted me for severe pain in the left side, teasing cough, slight breathlessness on exertion, and recurring irregularity of heart. The patient was sixty-one years of age, spare, florid, dark-haired, light-eyed, and, although disposed to stoop a little, well preserved. He was regular in his habits, fairly moderate in the use of alcohol, active, and a considerable smoker. The family history was characterised by rheumatism, gout, heart disease, and asthma. In the past personal history of the patient the most notable events were indigestion, often recurring, rheumatism, some stray visitations of gout, and two or three attacks of pleurisy of short duration. The attack for which the patient consulted me was of a week's duration, and was ascribed by him to having got chilled whilst driving late in an open cab. The lower half of the left side was slightly contracted, and expanded imperfectly on inspiration; the tactile vocal fremitus was at most parts greatly diminished; there was complete dulness on percussion; grating friction and a superficial rustling crepitation obscured the normal breath sounds; the pitch of the vocal

resonances was lowered and curiously uneven. A few mucous rhonchi with sparse, coarse, moist crepitations were heard over the upper part of the same side. A few sibilant and sonorous rhonchi with large moist crepitations were heard throughout various parts of the right lung. The heart, drawn a little outwards, was weak and irregular; a systolic bruit was heard within both the mitral and the aortic areas. Nothing special was noted in the condition of the digestive, urinary, or nervous systems. Both hands, the knees, and certain parts of the spine exhibited osteo-arthritic changes. I had no opportunity of seeing this patient again until July, 1883, when, in conjunction with Mr. Gifford Ransford, I had charge of him until his sudden and unexpected death in March, 1884. In the early part of June, at Aix-les-Bains, the patient was seized with a sharp attack of pleurisy, and was placed under the care of Dr. Berthier. It is probable that the character of the thoracic signs led to a suspicion of fluid effusion, for I understood that an exploratory needle was used, and that no fluid was found. At the time of examination the patient complained of frequently recurring paroxysmal cough, ending in vomiting of muco-purulent, sometimes fetid, expectoration, of severe pain in the left side, of breathlessness on exertion, of night sweats, of slight fever, and of great prostration. The left side of the chest was irregularly contracted and flattened, and rose feebly on inspiration. Over the lower two-thirds there were diminished tactile vocal fremitus and complete dulness on percussion. The breath sounds generally were feeble, hollow, distant, and at most parts the vocal resonance was lowered in pitch and diminished in tone. At two places, one below the lower angle of the scapula, and the other about an inch external to it, the breath sounds were cavernous; the large moist râles had a metallic quality, and there was loud bronchophony. Throughout the upper two-thirds the percussion note was hyper-resonant; the respiratory murmur, of normal type, was loud, harsh, and accompanied by medium-sized moist crepitations; the vocal resonance was increased. Nothing abnormal was discovered in the right lung. The muco-purulent expectoration, of ordinary histological characters, contained areolæ of elastic tissue from the lung; but, although several times sought for, no tubercular bacilli were found. When the sputa were fetid micrococci were abundant. The heart, drawn upwards and outwards, was enlarged, weak, and irregular; at the place of impulse a loud systolic bruit was heard; and in the pulmonary area there existed another bruit, louder in pitch and fuller in tone. The temperature, falling in the morning, rose in the afternoon to 101°. There were slight chill, and sweats. The digestive organs were much disordered; the tongue was loaded and the breath unpleasant. With anorexia and thirst, there was much flatulence; the bowels were irregular. The urine, at one time loaded with urates or depositing uric acid, was at other times limpid and slightly albuminous. Nothing worthy of notice was found in the condition of the nervous system. For months the patient steadily improved, and the condition of the left lung became quite passive. There were, it is true, occasional fits of paroxysmal coughing, some morning expectorations of the usual kind, and breathlessness or palpitation on exertion, but they did not materially interfere with the patient's comfort in life, and he did not himself give them any consideration. Curiously enough, however, as the condition of the lung and of the general health improved, the osteo-arthritic trouble returned, became slowly worse, attacked the neck, shoulders, back, hips, and hands, and was the cause of much suffering.

In February, 1884, the patient began to improve, and in the early part of March he had gained flesh and become in every way much better. But on the 10th of this month, being in his usual condition and exceptionally free from trouble, he suddenly began to cough up blood, and in a few minutes expired. The autopsy was made by Mr. John Morgan and Mr. Gifford Ransford. The whole left lung was united by layers of thick, dense, hard pleural lymph to the walls of the chest, and was removed with great difficulty. The lung was much diminished in size, dense and leathery to the touch, and invested by several layers of adventitious pleural membranes, varying in thickness and character at different parts. About the middle of the lung, where these membranes were thickest and most closely connected, they had, when cut, much of the aspect of a fibrous growth, and seen apart from their visceral connexions could have been easily mistaken for one. When laid fully open the lung appeared for the most part of a dark-red colour, and was found to be dense, hard, tough, and cut with difficulty. Fibrous bands passing from the pleura, and intersecting at various angles, traversed the middle portions of the lung, and compressed small bronchial tubes and bloodvessels. In the base of the upper lobe, and nearer the posterior than the anterior surface, there were two ragged irregular cavities. One, about the size of a walnut, contained curdy matter and blood; the other, rather smaller, was empty. Several bronchi in the neighbourhood contained clots of blood. The summit of the lung was encased in a thick capsule of laminated and indurated lymph; but the lung substance itself was substantially free from disease. Except at its anterior and inferior free margins, where there was much vascular emphysema, the immediate base of the lung although greatly congested and traversed by intersecting fibrous bands, was pervious to air, and free from any marked consolidation. The bronchial tubes were nowhere dilated. The right lung, beyond some pleural thickenings, exhibited no sign of disease. The bronchial glands were enlarged, but not caseous. The heart was enlarged, soft, dilated, and fatty. The mitral valve was rough, irregularly and finely nodulated, and incompetent. The aortic valves were atheromatous and incompetent; and the aortic lining was irregular, rough, and studded with patches and streaks of atheromatous deposits. In the sputum, many times examined during life, no tubercular bacilli could be found.

CASE 11.—In 1851 the patient, then a tall, stout, healthy bricklayer, forty-two years of age, with a good family history, fell from a scaffolding, and, having injured his right side, was admitted into the London Hospital, under the care of Mr. Luke. There it was found that he had fractured two of his right ribs and was severely bruised. After two months the patient was discharged from the hospital, and, although declaring himself well, had frequent cough, with blood-stained expectoration. In 1857 the patient came under my care for hæmoptysis. He was still stout and healthy-looking, and declared himself to be quite well, except for pain in the right side, a troublesome cough, and spitting of blood. A careful examination of the patient elicited no signs of disease, except in the right side of the thorax. There in the mammary and mid-axillary regions were slight dulness on percussion, increased tactile vocal fremitus, pleural grating, large moist crepitation, and moderately heightened vocal resonance. Coughing and deep inspiration produced sharp pain about the nipple. The pulse was 76, and the temperature 98·2°. In 1860 the patient again fell under my observation, and had altered much for the worse. He had become bald; his face, pasty and œdematous, wore an expression of suffering; his abdomen was loaded with fat; and he moved about with difficulty on account of shortness of breath. He still declared that there was nothing the matter with him but cough, profuse expectoration, pain in the right side, and dyspnœa on exertion. Inspection of the chest showed that the disease had considerably advanced since 1857. The right side of the thorax, between the clavicle and nipple, was retracted, and rose feebly on inspiration. The corresponding side of the neck was swollen, and the superficial veins, distended with blood, were not emptied during inspiration. In the retracted region there were found dulness on percussion, slightly diminished tactile vocal fremitus, pleural grating or creaking, bronchial breathing with coarse moist crepitation, and some increase of vocal resonance. These signs in more or less degree were found in the mid-axillary and scapular regions. In the summit of the lung the respiratory sounds were harsh and accompanied by crepitation; in the base no evidences of disease were found. The left lung appeared to be normal. The expectoration, which was abundant and gelatinous, or muco-purulent, consisted of a mucoid stroma having embedded in it leucocytes, blood-discs, granule cells, and epithelium. The heart was large, somewhat feeble, and beating at the junction of the cartilage of the fifth rib with the sternum. The pulse was 80; the temperature 98·8°. No notable signs of disease were found in any other part of the body. In 1866 the patient had lost flesh, strength, and colour, and his whole appearance suggested the existence of malignant disease. The face had a leaden tint; the features were full, and the under eyelids baggy with serum; the neck was swollen; the right arm was œdematous; and the right side of the thorax, greatly retracted, was covered by the ramifications of over-distended veins. The movements of inspiration were shallow, laboured, and frequent; the heart was seen beating to the right of the sternum, at its junction with the fourth rib; and periodical

paroxysms of cough, making the face livid and sometimes ending in vomiting, discharged quantities of muco-purulent phlegm. In this phlegm were found from time to time areolæ of elastic tissue from the pulmonary alveoli. Beyond some fine moist crepitations near the summit in front, nothing of moment was found in the left lung. Examination of the right lung yielded the results which follow. In the supra-clavicular region there were found hyper-resonant percussion note, increased tactile vocal fremitus, hollow bronchial breathing, prolonged expiration, crackling, clicking, and crepitating rhonchi and bronchophonic vocal resonance. In the infra-clavicular and mammary regions there were found great retraction of the thoracic walls, scarcely visible expansion on inspiration, diminished tactile vocal fremitus, blowing, and at some parts cavernous, breathing, clicking, crackling, and crepitating rhonchi and bronchophonic or pectoriloquous voice. In this region, also, the expiratory sounds were greatly prolonged, the rhonchi had a metallic quality, and pleural creaking or grating was sometimes audible. In the lung below these regions the respiratory sounds were jerking and harsh, the expiration was prolonged, and with both movements of breathing fine moist crepitations were heard. Percussion and the resonances were unaltered. The action of the heart, drawn, as already mentioned, to the right, was feeble and frequent. A low-pitched systolic murmur was heard at the base. The pulse, small and compressible, beat about 80 in the minute. No unsoundness was detected in the arteries. The extremities were cold, and the feet slightly œdematous. The tongue was loaded, appetite impaired, and thirst considerable. The liver was enlarged, and descended more than an inch below the free margins of the lower ribs. The bowels were irregular, and external hæmorrhoids sometimes distressed the patient. The urine was abundant and low in density. It contained about 5 per cent. of albumen, but deposited no casts. The skin was acting well, but there were neither night sweats nor chills. The evening temperature was 97·8°. About this time the patient was examined by most of my colleagues, and there was much discussion amongst us as to the nature of his malady; but the balance of opinion turned in favour of malignant disease. The patient remained for many months in the hospital. The physical signs of disease of the right lung continued after seven months substantially unchanged; but in all other ways, in appetite, flesh, strength, colour, and sense of well-being, the patient had become, to use his own phrase, "another man." Feeling thus much better, and anxious to get into some sort of work, he was, at his own request, discharged from the hospital. At the end of eighteen months the patient was found to be in extreme poverty, and becoming rapidly worse in health; and on October 1st he was re-admitted into the London Hospital. At this time the condition of the chest was much the same as when last examined; but in one or two places about the middle of the upper lobe of the left lung there were signs of fresh disease; slight circumscribed dulness, moist crepitations, jerking inspiration, increased resonances. The heart was still displaced to the right; there were systolic murmurs at the base; the pulse at the wrist was small, feeble, and under 80. The temperature was about midday 97·4°. It was, however, in his general condition that the patient had relapsed and become worse than at any previous time. With pallid and dusky hue of face, with greatly swollen neck, traversed by gorged and tortuous veins; with wasted body, and œdematous legs; with short and laboured breathing, interrupted almost to suffocation by paroxysms of cough; unable to move about without sweats and tremors—he looked the picture of suffering and weakness. The tongue was of a bluish hue, and thickly coated with a yellow fur; only fluid food could be taken; there was much flatulence; attacks of diarrhœa were frequent. The urine was of low density, moderately albuminous, and deposited granular and hyaline casts. The extremities were cold and blue. The skin acted freely and fell often into profuse sweatings. No notable sign of disease was discovered in the examination of the nervous system. Nothing done for the patient gave him relief. He became slowly weaker; and at length, after seventeen years' conflict with his malady, he succumbed. The thorax and abdomen alone were examined after death. The heart and great vessels lay beneath, and a little to the right of the sternum, corresponding to the third, fourth, and fifth intercostal spaces. The heart was large, soft, and loaded externally with fat; there was no demonstrable valvular imperfection; the lining membrane of the aorta and small portions of the pulmonary artery were atheromatous. The veins at the root of the neck were partially compressed by adhesions connecting the upper lobe of the right lung to the neighbouring parts. It was only by the free use of the knife that the right lung could be removed from the chest. Greatly diminished in size and irregular in form, surrounded by a tough fibrous capsule, at some parts over an inch and a half in thickness, and having disposed along its inner surface from the apex to near the base a flattened mass of lobulated yellow fat, the organ on superficial inspection looked more like a tumour than a lung. A longitudinal section having been made, it was seen that the fibrous capsule investing the lung consisted of several closely superimposed layers of different character and thickness; that, where uncut, the outer surface was rough, uneven, and obscurely warty; that from the inner layers fibrous bands of unequal breadth penetrated the lung, and passing along the inter-lobular septa, or accompanying the vessels, or surrounding the smaller bronchi intersected in various directions, produced an areola of varying size and form; and that chiefly at the intersections, but also occasionally elsewhere, the fibrous bands exhibited small, hard, tough, nodular swellings. Corresponding to the place where the ribs had been fractured, the adventitious pleural membranes were infiltrated with flakes and particles of calcareous matter. The upper two-thirds of the lung were intensely congested and riddled with small, ragged, irregularly-shaped cavities. Here and there were small consolidations due to the presence in the alveoli of an amorpho-granular obscurely fibroid matter. The pulmonary arteries, and at some parts the pulmonary veins, were thickened. Once in a lobular branch of the artery a nodule was seen almost entirely obliterating the lumen of the vessel, and growing from its inner wall. Almost everywhere the adventitia was thickened, not apparently by cell proliferation, but by a nearly homogeneous infiltration. In several instances in which small branches of the pulmonary artery were apparently much compressed or thickened, the alveolar territory to which it was distributed was in a condition either of fatty usure or of atrophic emphysema. This relation between the state of the vessel and the state of the lung was so frequent that one was disposed to regard it as causal. Some of the larger bronchial tubes in the upper part of the lung were dilated, whilst their walls had become thin and soft, but tough. At these parts the ciliated epithelium was replaced by a subspheroidal one, the cartilages were wasted and inelastic, and the muscles had apparently undergone fibroid degeneration. Here and there an early division of the intralobular bronchi was found almost obliterated, and the alveoli connected therewith were collapsed. Immediately beneath the pleura throughout the whole extent of its diseased portions the lung exhibited uninterrupted lines or patches of pneumonic consolidation. In the worst part the consolidation was of the croupous sort; but at several points where the consolidation was larger, and in immediate relations with lymphatic spaces or vessels, it was caseous. At some parts in the midst of the fibroid induration the alveolar walls were greatly altered in structure, and the alveoli contained a matter composed of free nuclei, leucocytes, epitheliod cells, and pigment globules. The alteration of the alveolar walls was considerable. They were thickened; the epithelium lining them was subspheroidal, and arranged sometimes in a single and sometimes in a double or even triple layer. Some of the alveolar capillaries were obliterated; others were dilated, almost saccular; all of them appeared to be thickened. The intervascular spaces, much larger than in health, had a fibrillated appearance, and were crowded with oval nuclei irregularly disposed. Once or twice an alveolar wall was seen to be nodulated; and both in structure and arrangement the nodule resembled a minute fragment of a nucleated fibroma. The lower third of the lung was intensely congested, and yielded on pressure an abundant frothy blood-stained muco-purulent matter. On its surface, and particularly at its free margins, the lung was emphysematous; but emphysematous patches were found also about the centre of the lung, close to, and sometimes in the midst of the fibroid induration. The left lung, of large size and a greenish-red colour, was connected by loose adhesions to the costal pleura. The whole lung was greatly congested, and yielded on pressure an abundant frothy sanguinolent serum. In the middle of the upper lobe there was a group of bodies which, in their naked-eye characters, could not be distinguished from what are called veritable

tubercles or grey granulations. About the size of a hempseep, spheroidal, and projecting above the level of the cut surface of the lung, they were greyish, semi-transparent, dense, hard, tough, and free from every trace of caseous change. Each body, composed for the most part of fibro-corpuscular elements, interspersed with epithelial-like cells and short nucleated fusiform fibres, might have been regarded, according to the subjective attitude of the observer, either as a mere fibrous knot or as a true tubercle. The irregular layers of new membrane constituting the capsule of the lung were of two kinds, but not alternately arranged. The one kind was hard, close, and similar to a lamellar fibroma; the other resembled a loose areolar tissue in the trabeculæ of which were branched connective-tissue corpuscles, and in the meshes thereof decaying leucocytes and epithelial-like cells. The bronchial glands were enlarged and loaded with pigment, but not caseous. The juice, in addition to the normal lymph corpuscles, contained in enormous numbers spheroidal multi-nucleated cells in a state of active endogenous proliferation. The liver and spleen were enlarged and congested. The capsules of both organs were greatly but irregularly thickened. In the former, cirrhotic changes were beginning. Both kidney were enlarged and much congested. Their capsules were opaque, thickened, and adherent. The capsular surface of each kidney was obscurely granular and mottled; but there was little wasting of the cortical substance. In many of the arteries, however, there was thickening of their outer and inner coats. I have in this case described some of the pathological changes found after death at greater length than the scope of these lectures will fairly warrant; but I excuse myself on the ground that they affect questions of fundamental importance, and that having followed the case throughout its whole course, I may venture, with less hesitation than will be necessary in the other cases, to deal with the conclusions which the study of the case seems to justify one in drawing from it.

CASE 12.—I now proceed to relate briefly the history of a case which in the group of advanced and complex cases represents that section of it composed of patients who have continued to live. This case is the last which I have chosen for the illustration of my subject, and at the close of the lecture it will be submitted to your own examination. The patient is unmarried and a potman, but, as is alleged, of temperate habits. The father died some years ago of consumption; the mother with a brother and sister are in good health. The patient himself never had any illness until September, 1875. About that time he had a chill, from which he speedily recovered. On October 28th, whilst walking in the street, he became suddenly cold, giddy, faint, powerless, and fell to the ground. Consciousness was retained throughout. Carried home and put to bed, he was seized with a sharp cutting pain in the left side, shortness of breath, dry cough, and recurring chills. On the 29th the patient recovered power; but after this time losing ground in other ways, he was received into the London Hospital on November 2nd. Examined after admission, the following facts were recorded. The left side of the thorax moves on inspiration less freely than the right; over lower three-fourths the tactile vocal fremitus is increased; and in the same region there are dulness on percussion, large moist crepitations, bronchial breathing, increased vocal resonance, and scattered patches of grating pleural friction. Examination of the right lung yielded no evidence of disease therein. Heart's action weak and frequent; pulse 94, small and compressible. Temperature 101°; respiration 28. The tongue was furred and dry; the breath was fetid; there was complete anorexia; the bowels were confined, and the urine was scanty, high coloured, and loaded with purple lithates. The skin was dry and harsh and the face flushed; the eyes were bright and the pupils dilated. The patient complained of headache, general pains, a sharp stitch in the left side, dry cough, and malaise. A week after admission an effusion of serum had occurred in the left pleura; the heart was pushed to the right of the sternum; and the patient's breathing had become rapid. Within a month all signs of fluid in the left pleura had disappeared; the heart had returned to its normal position; and, but for an uneasy sensation throughout the lower part of the left side, the patient said that he would be well. The pulse, respiration, and temperature were almost natural. Round the base of the lung, however, there were loud grating pleural frictions, and deep inspiration or cough produced pain. When the patient was dismissed, some months afterwards, the pleural frictions were still present, but he expressed himself as in other respects well. During the following year the patient was readmitted into the hospital with dry pleurisy of the right side. He was in poor general health, looked pale and ill, suffered from gastro-hepatic catarrh, and had scanty high-coloured urine, slightly albuminous, and free from sugar, but loaded with purple urates. The heart occupied its natural place in the thorax, was free from signs of disease, and beat about 80 a minute. Throughout the mammary and axillary regions of the right side there were grating or rubbing pleural frictions and pain on inspiration or coughing. The respiratory murmur was feeble and interrupted, and the resonances were diminished; but in as far as it could be ascertained there were no pulmonary râles. The left side of the thorax moved less freely than the right, and it was irregularly flattened. There was dulness on percussion in the infra-clavicular, mammary, axillary, and mid-scapular regions; the tactile vocal fremitus was slightly diminished; the breathing throughout was feeble and hollow; coarse moist crepitations, accompanying both respiratory movements, were heard in several places; and the vocal resonance, varying at parts, was on the whole increased. An inch below the outer end of the clavicle there was a patch of dulness equal in size to a florin, where there were heard bronchial, almost tubular breathing, a few small moist râles of metallic quality and bronchophony. Here and there intermittently pleural creaking or grating was heard. Patient had a short hacking cough, a moderate amount of muco-purulent expectoration, and breathlessness on exertion. The sputum consisted of a mucoid stroma, having embedded in it leucocytes, young epithelium, pus globules, granule cells, and much amorpho-granular matter in little masses or streaks. No elastic areolæ were found. A systolic bruit was heard in the pulmonary area; the pulse was 84; the temperature was 99°. The patient remained in the hospital until June, 1877. During all those months he improved in general health. The condition of the left lung remained without material change until the time of his discharge. And although on the right side the pleural frictions were often absent for weeks, they always returned for longer or shorter periods, and appeared to be causally connected with changes slowly advancing in the middle and lower part of the lung. In these regions the intercostal spaces were deeply retracted; there was diminished movement on inspiration; dulness on percussion had become considerable; the respiratory murmurs feeble, hollow, distant, resembled those heard in moderate pleural effusion, and vocal resonance was muffled. There was no displacement of organs; and various alterations of the position of the patient produced no perceptible change in the outlines of the area of dulness. On readmission to the hospital in 1882, the patient was found to be much worse than when he left it in 1877. Pale, thin, weak, breathless, he complained of troublesome cough, with a good deal of muco-purulent expectoration, and of acid and flatulent disorders of digestion. Furthermore, he had a small strumous-looking abscess over the second lumbar vertebra, and chronic enlargement of both testicles, unconnected with any venereal affection. On examination of the chest it was seen to be retracted, chiefly on the right side. Its movements during inspiration were shallow, frequent, and irregular, and the intercostal spaces were everywhere deepened. Over the upper half of the left lung there were dulness on percussion, slightly increased tactile vocal fremitus, pleural creaking, moist metallic crepitations, bronchial breathing, and increased vocal resonance. An inch below the outer end of the clavicle, and over a space of the size and form of a florin, there were to be heard cavernous breathing, large moist râles, and loud bronchophony. In the supra-clavicular region the respiratory sounds were merely feeble and hollow. In the upper third of the right lung no evidences of disease were discovered. The lower two-thirds were retracted, and rose little on inspiration. There was complete dulness on percussion; the tactile vocal fremitus was much diminished; the respiratory murmur was feeble; no râles were heard; but there were distinct pleural rustlings, creaking, and friction; the vocal resonance was muffled and distant. The state of the digestive organs was unsatisfactory; the tongue was coated and the breath fetid; the tonsils were enlarged, and stuffed with cheesy lumps; acidity, flatulence, and sensations of burning accompanied the digestive processes; the liver, rather small, was pulled upwards by the contracted lung; the bowels were irregularly and inadequately relieved. The urine, turbid from a little mucus, had a density

of 1016, contained about one-twentieth of its bulk of albumen, and, according to West's process, yielded with an average daily discharge 2 per cent. of urea. The heart, occupying its normal position, was slightly enlarged; at its base, within the pulmonary and aortic areas, a systolic bruit was heard; the pulse was 84, of moderate volume and strength; the arteries were soft. The evening temperature stood at 98·4°, the morning at 97·2°. The skin was rather harsh, dry, and indisposed to sweating. Nothing of moment was discovered in the examination of the nervous system. The morning sputum, not exceeding two drachms of muco-purulent matter, contained elastic areolæ from the pulmonary alveoli. The areolæ had become so changed as to admit of being broken by proper manipulation. In the sputum of the drier cough of the afternoon and evening moulds or casts of the tonsillar crypts were occasionally present. They resembled, but with ordinary care could be easily distinguished from, the elastic areolæ of the pulmonary alveoli. On leaving the hospital in 1883 the patient had greatly improved in flesh, colour, and strength. The digestion had become good; albumen was found only occasionally in the urine, and the percentage of urea had risen. The condition of the lungs had also improved; it is true that the physical signs of structural disease remained practically unaltered; but cough and expectoration had ceased, breathlessness was less, and the patient declared that he had no discomforts in his chest. When, in February, 1884, he again came under my professional care, he had again fallen into deplorable health, and was in every way worse than he had been at any former time. Thin and pale, bent and breathless, showing an uncertain gait and œdematous legs, it seemed as if his malady had greatly advanced, and as if life must be drawing to an end. Nevertheless, a careful examination was sufficient to show that, although there were cough, expectoration, and breathlessness, there was no material change in the actual physical condition of the respiratory organs. The patient's relapse was plainly due to failure in other parts of the organism, brought about by bad hygienic management, and by recurring bronchial and gastric catarrhs. The tongue was thickly furred; there were little appetite and much thirst; acidity, flatulence, weight, and pain frequently distressed the patient; the bowels were irregularly and inadequately relieved, and the fæces were deficient in bile. The urine, having a daily discharge of over fifty ounces, was pale, turbid with mucus, acid, of a density of 1014, and contained, according to the old tests, about a tenth of its bulk of albumen. The signs of a cavity under the outer end of the left clavicle had become much less marked; and the sputum, carefully and repeatedly examined, contained no elastic areolæ from the lung and no tubercular bacilli. The heart's sounds were muffled, seemingly from the development since last examination of some alveolar emphysema; the pulse was 104, small and compressible; the extremities were bluish and cold. The thermometer recorded an evening temperature of 98°. Once more under hospital care the patient rapidly recovered, and when discharged in August, 1884, he expressed himself well. No signs of active disease were to be discovered in the lungs; the digestion was good; albumen had disappeared from the urine; flesh, strength, and colour had been recovered; and beyond breathlessness on slight exertion the patient felt nothing of which he could much complain. On the 13th of March of the present year I examined for the last time the subject of this case. As usual after leaving the hospital, he had failed in health and become pale, thin, weak, and nervous. He complained of morning retching, of an occasional choking sensation in his chest, relieved by the "breaking of phlegm, which he could never get up;" of a slight, dry, hacking cough; of breathlessness on much exertion; and on epigastric cramp when he is hurried. He said, however, that he would be well but for the morning retching, and being closely examined with respect to this, he would not allow that it could be in any way connected with his manner of life. The tongue was furred, the breath foul, and the appetite capricious. Various discomforts were felt in the course of digestion, particularly a churning and burning, relieved by vomiting. The bowels acted daily, there were no hæmorrhoids. The urine, turbid when voided, was acid, phosphatic, moderately albuminous, and deposited after standing a flocculent sediment, consisting of phosphates, epithelium, pus cells, and some mucus. The head of the epididymis of each testicle was enlarged, nodulated, and tender. The thorax was irregularly flattened, from before backwards and from above downwards. The left side was more rounded, larger, and more movable than the right. The left clavicle was higher, and less prominent than its fellow; the shoulders were depressed; the breathing was shallow, laboured, abdominal, and very frequent. During inspiration the supra-clavicular spaces retracted. There was no venous engorgement of the neck. In the upper part of left side, in front and in the greater part of right side, the intercostal spaces in breathing are moved in the same manner as the abdominal muscles. Over the upper fourth of the left lung there were found diminished expansion; dulness of tympanic tone on percussion; generally increased, but at some spots diminished, tactile vocal fremitus; hollow bronchial breathing; at some parts a just audible vesicular murmur; and almost everywhere loud bronchophony. There were no râles; but in the lower and outer part of this region a superficial rustling, rubbing, or creaking could be occasionally heard. Between the third and sixth ribs there were found slight dulness of tympanic type, moderate tactile vocal fremitus, broncho-vesicular breathing, distant inspiratory crepitations, and diminished voice resonance. At the lower border of the sixth rib the gastric percussion note was heard. Over the summit of the right lung there were found diminished expansion, tympanic dulness on percussion, increased tactile vocal fremitus, hollow breath sounds, increased voice resonance, and no râles. From the middle part of the lung to its base, especially in the axillary region, there were found decreasing expansion, diminished tactile vocal fremitus, feeble bronchial breath sounds, pleural rustling or creaking, and muffled voice resonance. No râles were heard anywhere throughout this lung. The area of superficial cardiac dulness was increased. The impulse of the heart could be seen in the fourth intercostal space, just below and about an inch outside the nipple. In the second intercostal space, within an inch of the sternum, the auricular contractions were visible.[3] The first sound was muffled and mumurish, the second loud and reduplicated. The pulse was 94, small and compressible; the evening temperature was 98°. Except at the extremities, which were cold and damp, the skin was thin, rough, and dry. No sign of disease was discovered in the examination of the nervous systems. I have brought the patient here to-day, and he may be seen in one of the rooms below.

The justice of introducing this case as one of primitive dry pleurisy may be, I confess, fairly questioned. Sprung from a phthisical father, and the subject of strumous tonsils and testicles, some might plausibly contend, with the fashion of the time in their favour, that the primitive disease was tubercular, that the dry pleurisies were only its secondary manifestations, and that, arrested by fibroid evolution, substitution,[4] or invasion, the case was one of ordinary tubercular phthisis, which, in the felicitous diction of Dr. Moxon, was "writ old." But, more than this, it might be contended that as some of the lymphatic vessels arising in the deeper parts of the lungs empty themselves into the subpleural lymphatic spaces, tubercular changes among the lymphatic rootlets too far from the surface to be discovered by physical signs would manifest the earlier of their secondary consequences in subpleural adenitis or plastic exudations. And, furthermore, it might be asserted that in the beginning of this case tubercles did exist in the lung beyond the reach of physical exploration; that they excited secondary structural changes in the adjacent tissues; and that those changes, through the medium of the lymphatics, begot the dry pleurisies herein alleged to be primitive. All this, it is true, may be justly said. But it is also true that there is much to be said on the opposite side, and more than it would be proper for me to say on this occasion. Nevertheless, in passing, I may be permitted to remark that phthisical predecessors do not necessarily beget more than pulmonary vulnerability; that analogical arguments are not conclusive evidence; that facts ascertained upon evidence ordinarily considered adequate are not to be rejected upon merely theoretical grounds; that radical departures from all the several characters which collectively constitute a given type of disease demand, even if conditional, either a conclusive proof of unity or a separate recognition of autonomy; that the true criterion of the nature of a case lies less in the pathological

[3] Perhaps these movements were really due to a retracted lung and a dilated pulmonary artery.

[4] Cruveilhier, Boudet, Blase, Brichteau, and perhaps Pollock and Moxon.

changes which it exhibits after death, than in the completed history of its origin, course, and issues during life; and that if the case just recorded were made one with every other form of pulmonary phthisis, through the causal agency of a bacillus, loyalty to knowledge and service to society would alike require some more rational explanation than has yet been given; why, within the limits of a unity, real or imagined, forms of disease widely differing in their symptoms, signs, course, complications, duration, and issues should be refused a distinctive, although still dependent recognition. I do not know whether through this refusal the loss to science or to society is the greater; but I am sure the loss to both is great, and I shall advert to it again.

Here I must bring to an end this narration of cases. Every one of them represents but inadequately the group to which it belongs, and from none of them can be obtained a connected, and, as far as our present knowledge extends, a complete view of the subject matter of our inquiry. But when all these cases are collated, compared, and otherwise critically considered, one case will be found to illustrate or explain another, the more complete will in some measure supplement the less complete, and in the pathological changes found in those cases in which autopsies were made, we may fairly form probable judgments of the pathological changes which would have been found in other cases in which autopsies were forbidden. In this way it may happen that we shall at length succeed in getting larger and better knowledge than we now possess of the origin, course, and issues of dry pleurisies. And although it must be that this knowledge shall prove in many ways defective, and in some even inaccurate, it will at least suffice to provoke inquiry, and to make plainer and easier the way for those who follow in the search for what remains to be corrected and discovered therein.

A Museum Lecture

ON THE

ANATOMY OF SPINA BIFIDA.

Delivered in the University of Cambridge,

BY PROFESSOR HUMPHRY.

GENTLEMEN,—Finding considerable difference of opinion among surgeons respecting the anatomy of spina bifida, and especially, at which I was surprised, respecting the usual relations of the spinal cord and the spinal nerves to the sac, I have recently examined the specimens of this affection in most of the pathological collections of London, as well as some recent specimens which have been kindly submitted to me by Dr. Goodhart and Mr. Stewart. The chief points are, however, sufficiently demonstrated in the specimens before you, most of which were dissected and placed in the museum of the University by myself a good many years ago.

The name "spina bifida" is derived from one, and that not the most important, feature of the affection—viz., the separation or divergence, and in some instances the dwarfing, of the vertebral arches. This is associated with, and probably caused by, the protrusion from the vertebral canal of a sac containing a thin colourless fluid situated in the middle line, and of variable size. The affection is most common in the sacral, or the lumbo-sacral, region. The sac is more or less covered by skin, rarely altogether, but commonly to some extent of its circumference; the middle part being usually covered, rather formed, by a thin, translucent, bluish-red, more or less vascular, membrane; though in some instances this middle part has the appearance of a cicatrix. The thin, translucent, or cicatricial middle part is continuous with the surrounding skin, the line of demarcation between the two being pretty clearly defined. The sac is commonly circular in outline, and its upper and lower borders afford some criterion of the extent in the spinal column to which the vertebral arches are deflected, and the vertebral canal is open. Still, the sac not unfrequently overlaps the unaffected arches above and below, and it usually overlies and extends beyond the everted arches at the sides. Dissection in most instances shows the spinal cord turning beneath the lowest entire vertebral arch—that is, the arch immediately above the spina bifida, and passing into some part of the wall of the sac. In some cases the cord runs free through the upper part of the sac to the middle of its wall, where it is composed of the thin membrane just mentioned. In other instances, immediately upon reaching the sac the cord is blended with the wall of the sac, and requires a little dissection for its demonstration. The nerves, traced from the sacral, or the lumbar, intervertebral foramina, do not form a cauda equina in the usual manner, but are directed transversely, or nearly so, towards the same membranous part of the sac as the spinal cord; and, like the spinal cord, they are, in some instances, seen in their course to this part, lying free in the sac, whereas in others they lie in their whole length in the wall of the sac. In a third set of cases they present intermediate conditions, being partially free in the sac and partially embedded in its wall; or they are more or less united together by membranous bands which may be regarded as derivatives from the inner layer of the wall of the sac; and it is probable that the compartments, and even the cysts, occasionally found in connexion with spina bifida sacs may be thus produced. Thus, both cord and nerves pass to the sac, being stretched or lengthened in proportion to the size of the sac; and they are more or less blended with the thin membranous hinder part of it. In this specimen—at the lumbar and upper sacral region—the cord is seen entering the sac, traversing the upper part of its wall, blended with the hinder thin part, and then reappearing at the lower part, where something of a cauda equina is formed by the junction of the nerves of the two sides with the cord, and the median filament extends onwards towards the coccyx. The cord therefore in this case may be traced, and the anterior spinal artery is visible upon its surface, along the whole of the interior of the back of the sac, and from the sac into the sacrum; and the several lumbar nerves, from the two sides, pass on the wall of the sac to the cord. There was hydrocephalus in this case; and the central spinal canal, which communicated above with the distended cerebral ventricles, is dilated down to the spina bifida.

The nerve-roots and their ganglia in cases of spina bifida are not infrequently situated within the vertebral canal; and in some of the specimens before you, two or three adjacent ganglia are seen to be approximated and even joined together, and contained in one sheath of dura mater. This approximation and fusion are probably a result of the traction exerted upon the nerves in their passage upon the wall of the sac.[1]

The cavity of the spina bifida, which, as we have seen, is in some cases traversed by nerves and partitioned by membranous septa, looks in many specimens as if it were continuous with the arachnoid sac, and as if it were lined by the arachnoid membrane. In some this is the case. It is so in the dorsi-lumbar specimen I have just shown you. The sac of the spina bifida is here formed by a dilatation of the anterior part of the spinal arachnoid cavity, the posterior part of that cavity, the part behind the nerve roots, being obliterated, or not having been formed. But a careful and close examination shows, in some at least, perhaps in most of those in the sacral or sacro-lumbar region, that this is not the case. The parietal and visceral surfaces of the arachnoid in the spinal canal, near to the sac or at its orifice, may be seen to be adherent; or the epithelial lining is reflected from the one to the other, so that the arachnoid membrane is not traceable into the spina bifida, and the spinal arachnoid cavity is shut off from the cavity of the spina bifida. The sac of the spina bifida accordingly appears to be formed in the subarachnoid space, and the lining of the sac, as well as the coverings of the cord and of the nerves, and the more or less complete membranous septa, where these exist, must in that case be formed by the subarachnoid or pia mater tissue. It is not always easy to determine, even on dissection, whether the sac of the spina bifida is thus separate from the arachnoid cavity; but where it is so the fluid in the sac, and, in like manner, any fluid injected into the sac, will not readily pass into and along the arachnoid cavity of the spinal canal and the skull, though it may permeate the thin membrane which forms the wall of the sac, and so reach the arachnoid cavity or the loose subarachnoid tissue of the cord, and extend along the cord to the brain.

The specimen of lumbo-sacral spina bifida which I have

[1] This fusion of the ganglia was pointed out by Dr. Fisher, Downing Professor of Medicine in this University (London and Ed. Phil. Mag., vol. x., 516, 1837).

here, entrusted to me by Dr. Goodhart, and which has been recently dissected by Dr. Anningson, shows well many points of the anatomy of this malformation. The sac is of about the size of an orange, with the usual cicatricial tissue at the middle of its wall and with skin over the circumference. The skin and fat were easily removed near the spine, but are adherent to the subjacent layers of the sac near the middle, and ultimately blend with them in the cicatricial tissue. A tough structure, apparently the lateral halves of the interspinous ligament, cleft like the spinous processes, was found beneath the skin and fat on the sides of the sac. It was connected laterally with the recurved and shortened vertebral arches and spinous processes. The dura mater of the cord expands over the sac, forming a thick covering, pierced by the spinal nerves at the sides and blended with the other structures at the border of the cicatricial tissue. Beneath the dura mater is a double layer—visceral or spinal, and peripheral or subdural—of the posterior arachnoid (the arachnoid, that is, behind the nerve roots and the ligamentum denticulatum). These layers, though in close contact, were easily separated, the posterior arachnoid cavity being thus displayed. Like the other components of the sac, they are adherent and blended in the cicatricial tissue, and they are also closely adherent at the junction of the spina bifida with the spinal canal—at the level, that is, of the lowest complete vertebral arch; so that the posterior arachnoid cavity of the sac (in the wall of the sac) is quite shut off from the posterior arachnoid cavity of the rest of the spine. The visceral and peripheral surfaces of the anterior arachnoid (the arachnoid that is in front of the spinal nerves and the ligamentum denticulatum) were non-adherent; and the anterior arachnoid cavity was quite free along the whole length of the vertebral canal, including the spina bifida. The cavity of the sac is formed altogether in the anterior subarachnoid space, is entirely lined by subarachnoid or pia mater tissue, and is partially divided by imperfect septa of that tissue, projected into it by the spinal cord and nerves. A thick nerve-bundle, consisting of the spinal cord, with surrounding lumbar and upper sacral nerves, and forming, as it were, a retroverted cauda-equina, turns beneath the last vertebral arch, leaving the bodies of the vertebræ, the anterior dura mater, and the anterior arachnoid. Thus, invested with pia mater or subarachnoid tissue only, it runs for a short space free in the sac to the cicatricial tissue of the hinder wall of the sac; here the component cord and nerves, with their investing pia mater, are lost in the cicatricial tissue. The spinal nerves pass from the intervertebral foramina in regular order and pierce the dura mater separately all the way down from the head to the coccyx. The lower lumbar nerves having entered the dura mater, are, as we have seen, directed downwards, accompanying the cord to the back of the sac. The upper two sacral nerves, piercing the wall of the sac, take a more transverse course to the same point; and their ganglia, like those of the lumbar nerves, are outside the cavity of the arachnoid, and invested with sheaths of the dura mater. The nerve roots of the lower sacral nerves also pierce the dura mater, then run between the arachnoid layers in the wall of the sac—that is, in the posterior arachnoid cavity of the wall of the sac,—and so reach the cicatricial tissue; and the ganglia of their posterior roots lie in this posterior arachnoid cavity. Thus the wall of the sac is formed by the dura mater, the arachnoid, and the outer layers of the pia mater, together with the spinal cord and nerves; and the cavity of the sac is formed in the anterior subarachnoid tissue, and is lined, probably, by the endothelium of that tissue. Along the fore part of the vertebral canal the three coats, with the anterior arachnoid cavity, are undisturbed, and retain their normal relations with the bodies of the vertebræ, except that, as just said, the cavity is formed in the anterior subarachnoid or pia mater tissue, and a layer of that tissue is therefore expanded over the cavity; whereas at the hinder part of the vertebral canal, the three coats with the posterior arachnoid cavity, together with the nerves and the spinal cord, are stretched out to form the bulging wall of the sac, are more or less adherent to one another, and are all, as well as the cutaneous coverings, lost in the cicatricial tissue of the hindmost part of the sac. This specimen may be taken as illustrating the usual anatomy of a spina bifida, an accumulation of fluid in a cavity formed in the anterior subarachnoid or pia mater, with all the structures posterior to it—namely, subarachnoid tissue, spinal cord and nerves, posterior arachnoid membrane and cavity, dura mater, vertebral arches, subcutaneous and cutaneous tissues—stretched over it, and more or less imperfectly formed.

It is evident from the above anatomical considerations that the failure of development upon which spina bifida depends must occur at an early period of fœtal life, in most instances before the spinal cord has been segmented from the epiblastic, or epithelial, layer of the embryo from which it is developed. It accordingly remains adherent to that external epiblastic covering; the imperfectly developed tissues of the cord and of the nerves passing to it, together with this covering, form the membranous wall of the sac; and the various structures which should be produced between the cord and the epiblast are to a greater or less extent abortive. The failure may even take place, it is believed by some usually to do so, before the central spinal canal has been closed; or the recently closed canal may give way and be reopened by fluid accumulating in its interior; and in such case the median posterior exposed surface of the sac must correspond with the epiblastic tissue which should have formed the epithelial lining of the central canal.[2] This often cannot easily be determined, for the central canal becomes occluded where the cord joins the membranous wall of the sac, in the lower regions of the vertebral column at any rate; and its precise relations to the sac cannot therefore be made out. It was so in the specimen we have just seen, when there were hydrocephalus and dilatation of the central canal down to the spina bifida. The canal in this case could easily be traced down to the spina bifida, but no further; and it was impossible to say positively whether the structure which represented it was continued into the cord lining the sac of the spina bifida, or whether it was continued upon the external surface of the sac, though the appearances are in favour of the former supposition.

Associated with the failure of segmentation and development of the several structures between the cord and the epiblast is the accumulation of fluid, or dropsy, by the pressure of which the sac is formed, the vertebral arches are recurved or stunted, the nerves and the spinal cord are elongated, and the tumour is produced. It is possible that the dropsical condition, due perhaps to something of an inflammatory process, may be the prime agent, and that by its pressure it has prevented the segmentation of the tissues from the epiblast, as well as induced the other changes mentioned; or the dropsy may be due to a want of resistance consequent on the non-segmentation and arrested development of those tissues—that is to say, it may be cause or effect. The balance of opinion and of probability is perhaps in favour of the former view. Further, when several vertebræ above the sacrum are affected, the fore part of the spine, composed of the bodies of the vertebræ and the intervertebral substances, being unsupported by the vertebral arches and articulating processes, which are abortive or deflected, may bend backwards or forwards. In this specimen, in the loins, it is bent backwards; in this specimen, in the neck, it is bent forwards, so that the chin rests on the sternum; and in this third example, also in the neck, it is bent backwards, so that the occiput lies on the back. These several defects in the vertebral column, including the open state of the vertebral canal with the separation, eversion, or stunting of the vertebral arches, are all consequences of the arrested development and the imperfect segmentation and imperfect formation of the various structures in the median line, and of the dropsical accumulation associated with them. The greater frequency of this failure and of the presence of spina bifida in the lower—the sacral and lumbo-sacral—parts of the spine, is probably owing to the fact that the closing of the primitive furrow, which is a little dilated at this part, and other phenomena take place here rather later than in the upper regions; and they are therefore more likely to be interfered with or to be imperfect in this situation. A trace of this imperfection in the otherwise well-formed body is often to be seen in the smallness or incompleteness of the arch of the upper sacral vertebra, and also in the dimple in the skin over the coccyx.

I have thus described to you the anatomy of spina bifida, as it usually occurs in the sacral or the lumbo-sacral region; and you will have noted that the accumulation of fluid is usually in the subarachnoid space in front of the spinal cord, that the cord and the nerves are stretched backwards and outwards upon the sac, and are there confluent, together with the arachnoid, pia mater and dura mater, or their repre-

[2] See Contribution to the Study of Spina Bifida by Professor Cleland, Journal of Anatomy and Physiology, vol. xvii., p. 257.

sentatives, in the thin membrane which forms the hindmost part of the wall of the sac. Moreover, it is to be remarked that the cord, being unsegmented from this thin membrane and therefore fixed at this spot, and so fixed from a very early period of fœtal life, does not undergo that shifting in relation to the vertebral canal which ordinarily takes place during the later periods of fœtal life, and which is due to a greater proportionate growth of the vertebræ as compared with that of the cord. Hence the spinal cord, instead of terminating, as it does in the normal state, in the upper lumbar region, extends through the lumbar region into the wall of the sac, and may, in some instances, be traced beyond it to the lower part of the sacrum; and, as a sequence, the sacral and lumbar nerves pass transversely towards the cord in the sac, instead of ascending obliquely and forming a cauda equina; indeed, not unfrequently, as in a specimen I have shown you, the nerves traversing the spinal foramina just above the spina bifida take the reverse of their usual course and pass downwards, rather are dragged downwards, to the sac to join the cord. This, I say, is the usual disposition as demonstrated by much the larger number of specimens. In some cases, however, when the failure has occurred at a later period of fœtal life, the segmentation and the formative development of parts have taken place to a greater extent; and the skin, with its epithelium and the subcutaneous tissue, may have been formed in a natural manner all over the sac. This is the most frequent in the neck. In some, as in this lumbo-sacral specimen before shown you, the neural axis is more separated than in the other cases—that is to say, it is less completely fused with the wall of the sac, and forms a distinct cord or band attached along the whole of the inner surface of the hinder wall of the sac. It would seem, too, that in a few cases the segmentation and formation of the cord have been still more complete, so that it has become fully separated from the cutaneous and other tissues, and retains its normal place along the bodies of the vertebræ, and the dropsy, with the sac formed by it, is upon the hinder aspect of the cord. The cord then does not pass into the sac, at least does not pass along, and is not attached to, the hinder bulging wall of the sac. This would constitute a "hydro-meningocele" or "hydrorachis externa" posterior, in contradistinction to a "hydrorachis externa" anterior in which the cord and nerves enter the sac, and blend with its wall; and both these are to be distinguished from a "hydro-myelocele" or "hydrorachis interna," in which the fluid accumulates in the central spinal canal. It may be that this is so in a specimen in the museum of St. Bartholomew's Hospital. The specimen is a small spina bifida at the lower part of the sacrum, and the median filament of the cord and the nerves seem to be at the fore part of the sac; but further dissection is necessary to make the anatomy clear. In the College of Surgeons museum is a specimen from an infant who died three days after the application of a ligature to a cervical spina bifida. The narrow peduncle of the sac passes through between the sixth and seventh cervical spinous processes, which are almost fully developed, and nearly meet in the middle line. The cavity of the sac appears, from the direction of a bristle placed in it, to communicate with the hinder part of the arachnoid cavity, and the cord possibly is not in the least degree implicated, and passes free along the hinder surface of the bodies of the vertebræ. But further dissection is required to make sure of this. It may be, as in an apparently similar case represented in Förster's Misbildungen, that the affection consists in a dilatation of the central spinal canal, and that a thin dilated sheet of the hinder part of the cord is prolonged into the wall of the sac—that is to say, it may be an example of "hydrorachis interna." This can only be determined, if in such a specimen it can be determined at all, by removing the dura mater, and making a careful examination of the specimen. Whether the sac in this case was covered by skin or not cannot be seen. In cases of cervical spina bifida, occasionally met with, in which the sac has a narrow neck, and is covered by skin, the disposition is probably similar to that in the specimen just referred to. Like it, such cases furnish examples of the slightest degree of the malformation; and the examination of a larger number of specimens of the kind may enable us to judge what inference, as to the disposition of the cord and its relations to the sac, may be drawn from the presence of a covering of skin over the sac—whether, that is to say, the segmentation and development which have produced skin over the surface are associated with a corresponding segmentation and development of the cord sufficient to set it, with its pia mater and arachnoid, free from the sac, or so far free as to allow it to maintain its proper place in contact with the bodies of the vertebræ.

The fluid, as I have already said, appears commonly to be in the subarachnoid space in front of the cord; and the sac must in such cases, I conclude, be lined by an endothelium developed from that of the subarachnoid lymph spaces. In some instances the fluid is in the arachnoid cavity in front of the cord, and then the sac is lined by the endothelium of the arachnoid. The fluid may be, though this rarely is so, in the subarachnoid space, or in the arachnoid cavity *behind* the cord. In these last cases the cord would occupy its normal position upon the bodies of the vertebræ, and the nerves would also have their normal position; whereas in the cases in which the fluid, whether arachnoidal or subarachnoidal, is in *front*, the cord and nerves are separated from the bodies of the vertebræ, and are applied upon and coherent to, or blended with, the wall of the sac. The dura mater is in all instances expanded upon the sac, and traceable to the same extent as the skin, becoming like it, and at about the same place, lost in the homogeneous membrane of the hinder part of the sac. Though I admit that the fluid may be behind the cord, the cord retaining its normal position, I must say that I have not been able to satisfy myself that this was the condition in any one of the many specimens I have examined. In every one, unless the one presently to be mentioned be an exception, in which the anatomy was clear, the cord, or some part of it, and usually the nerves, passed into the sac, and was united with the wall of the sac.

In those cases where the vertebral arches are more extensively deficient, and which are often associated with deficiency of the vault of the skull and with more or less deficiency of the brain, the vertebral canal is usually covered only by a thin membrane, and the spinal cord, with the several superadjacent tissues, is absent or represented by that membrane into which the spinal nerves pass and are lost. In the specimen, however, which I now show you this is not the case. The fœtus is acranial and with spina bifida along the whole spine; the neck is bent sharply forward so that the back of the head is in contact with the dorsal part of the spine. The cerebral mass is quite rudimentary; and the axial cord, of considerable thickness, passes directly backwards from the floor of the skull, bridging over the concavity of the neck, upon the dorsal vertebræ, and is continued upon the bodies of the vertebræ along the whole length of the lower dorsal, the lumbar, and the sacral portions of the spine. The nerves join it in regular sequence; but in the neck they are crowded together, and the lower cervical ganglia on each side are blended into one mass invested by a common capsule of dura mater. In the upper part of the cord the central spinal canal is wide and open, forming a continuation of the fourth ventricle. It gradually diminishes to the lower dorsal region, where it is closed in as usual; and below this the cord tapers into the median filament which is continued to the coccyx. The specimen when it came into my hands, many years ago, was in its present condition; and to what extent the spinal central canal was dilated in the upper part, how it was covered in, what kind of covering existed over the spina bifida, and what was the cause of the eversion of the vertebral arches could not be ascertained. All that we can see is that the vertebral arches, without evident diminution of size, are thrown outwards and forwards, the vertebral canal is wide open in its whole length, and the spinal column is bent sharply forwards in the cervical region, and backwards in the dorsal region. The cord and the nerves lie on the bodies of the vertebræ in the sacral, lumbar, and dorsal regions, and pass, straight over the concavity of the cervical curve, from the dorsal region to the skull; and in this part where it bridges over the curve the central spinal canal is dilated. It is a remarkable case, and it appears to constitute an exception to the rule of the cord being closely connected with the hinder wall of a spina bifida, and to the ordinary manner of formation of spina bifida.

I say nothing about other exceptional varieties of spina bifida, such, for instance, as where there is cleavage of the bodies of the vertebræ, bony growths from them into the vertebral canal and other malformations. I have directed your attention chiefly to the more ordinary forms of spina bifida, the anatomy of which has acquired increased importance from the reintroduction of the treatment of the abnormality by injection. With reference to this treatment, you

will understand that it is better to introduce the needle, not in the mesial line, especially in the upper part, where the cord is almost certain to be connected with the wall of the sac, but on one side. Further, you will perceive that the separateness of the cavity of the sac from the cavity of the spinal arachnoid, in most instances, is some security against the direct passage of the injected fluid into the latter cavity, and that the advantage of Morton's fluid, as an injection, probably depends upon the addition of glycerine to the iodine and iodide of potassium, lessening the liability to the diffusion of those irritating substances through the delicate lining of the sac into the surrounding subarachnoid tissue.

ON THE

AFFINITY OF SIMPLE AND MALIGNANT JAUNDICE.

BY J. WICKHAM LEGG, F.R.C.P.L.,

ASSISTANT-PHYSICIAN TO, AND LECTURER ON PATHOLOGICAL ANATOMY AT, ST. BARTHOLOMEW'S HOSPITAL.

IN the January number of the *Revue de Médecine* there appeared an article by M. Chauffard on catarrhal jaundice, which was considered of sufficient importance to be noticed at length in the columns of THE LANCET. For my own part, I may say that I have read the paper with much interest and satisfaction, especially as M. Chauffard and myself had come to much the same views independently of one another. The two main opinions which the French observer sets forth are these: that catarrhal jaundice (a better name seems to be simple jaundice, because no theory of its cause is then assumed) is more of a general disease than is usually thought; and, further, that it is only one of a series of diseases, of which the lowest is the simple jaundice and the highest the malignant jaundice, the icterus gravis, or acute yellow atrophy of the liver. Though I have not followed exactly the same path, yet in one particular, at all events, as to the connexion between simple and malignant jaundice, I have arrived at the same point. So long ago as 1878, when writing in the St. Bartholomew's Hospital Reports,[1] I spoke of the affinity between simple and malignant jaundice. Pointing out that jaundice sometimes appears amongst kinsfolk or those living in the same house, it was said that in some of these patients the jaundice ran a harmless and uncomplicated course, while in others the jaundice first appeared to be as free from danger as in the rest, but later grave nervous symptoms came on, and the patients died. I added: "I am inclined to attribute the origin of the two to one cause—a poison introduced into the body in a greater or smaller amount; for we find that the epidemic jaundice appears in neighbourhoods where military ditches have been drained, or large diggings undertaken, or in the bad hygienic states which follow war or famine. Thus, if but a small dose of the poison be introduced into the body, only vomiting or diarrhœa may follow—a gastro-intestinal catarrh, followed by jaundice; or if the dose be greater or the patient predisposed, a malignant jaundice from parenchymatous changes in all the muscles and glands may prove fatal. The effect of a predisposition is well shown in the relation of the epidemics to pregnant women, nearly all of whom perish in an epidemic of jaundice, the state of their tissues predisposing them to the disease"—i.e., to the grave malignant jaundice. Much the same position was taken in a work on the "Bile, Jaundice, and Bilious Diseases" which I brought out in 1880. At p. 402, speaking of the difficulty of making a diagnosis between simple and malignant jaundice, it is said, "The line which separates these two must be very narrow ..... It seems to be a question of degree, not of kind." So far M. Chauffard and myself are in accord; we agree that the cause of the two diseases is a poison common to both; he thinks that in all likelihood the poison will be the septic alkaloids—ptomaines, as they are now called. This was an idea expressed by Gerhardt some few years ago, who thought that the acute yellow atrophy of pregnant women might be caused by the putrefaction of the dead fœtus.[2] But while of course acknowledging that the septic alkaloids may be the cause of simple and malignant jaundice in many cases, it would be a misfortune if they were to be looked upon as the only possible cause. It would be better to own that the causes are multiple. There are many poisons, organic and inorganic, which in small doses cause only a simple jaundice, in larger malignant jaundice. Amongst these alcohol stands pre-eminent for the frequency with which it causes attacks of simple jaundice, while on the other hand it does not seem to cause malignant jaundice so often as the other poisons akin to it in physiological action. It is well known that a debauch in wine will be often followed by a simple jaundice. On this point my experience is quite in accord with that of M. Chauffard. He found that an excess on what is now the national fête day, July 14th, was followed by a simple jaundice, while I have long been in the habit of pointing out at St. Bartholomew's that the festivals instituted by Sir John Lubbock are often followed by a small epidemic of jaundice amongst the out-patients. That alcohol will cause a malignant jaundice is shown by the classical case of Leudet. A man took by mistake a quantity of pure spirit, which act was followed by a three days' drunkenness; on recovery from this state he showed all the phenomena of malignant jaundice, both before and after death.[3] There are also other cases on record, though alcohol seems not nearly so prone to cause malignant jaundice as phosphorus or arsenic. In the chronic poisoning by alcohol, cirrhosis, its part seems to be to cause a general disease, of which the brunt falls upon the liver, which therefore draws to itself most attention, just as malignant jaundice used to be called acute yellow atrophy of the liver, and was considered a disease of the liver, though it is now by nearly all owned to be a general disease. Some years ago, in 1877, when speaking of a case of febrile cirrhosis in the St. Bartholomew's Hospital Reports, I stated some facts which seemed to me to point to the idea that cirrhosis of the liver was only a local expression of a general disorder, the outcome of a long-continued physiological action of certain poisons, which, when they act acutely and rapidly, cause malignant jaundice from parenchymatous degeneration; so that cirrhosis may really be looked upon as a chronic form of acute yellow atrophy of the liver.

Green-street, Park-lane, W.

[1] Vol. xiv., p. 47.

[2] Volkmann's Sammlung Klin. Vorträge, 1879-75, p. 107.

[3] Gazette Médicale de Paris, p. 405, 1860.

A CASE OF EXCISION OF THE RECTUM FOR CANCER.

WITH REMARKS ON THE PREVENTIBILITY OF SUBSEQUENT CICATRICIAL CONTRACTION.

BY HERBERT L. SNOW, M.D. LOND.,

SURGEON TO THE CANCER HOSPITAL.

SARAH W——, married, no children, aged forty-six, was admitted into the Cancer Hospital on Jan. 29th, 1884. There was no family history of cancer, but she was suffering from the effects of much mental trouble and hard work as cook in a hotel, lifting heavy weights, &c. Her husband failed in business four years previously. These facts are given as pointing to the frequent initiation of cancer by depressing emotion and debilitating nervous influences. The symptoms had been noticed for a year. On examination the rectal wall was found thickened and infiltrated as far up as the finger could reach; the mass was freely movable; beyond it the tissues appeared healthy. Much contraction existed towards the anus; there were great pain and difficulty in defecation. On Feb. 5th the diseased part was excised by the method recommended by Mr. Harrison Cripps, in his valuable Jacksonian essay. There was free hæmorrhage, checked without difficulty. The recto-vaginal septum was much infiltrated, and the dissection left this very thin. Subsequently iodoform was applied, and the patient placed in bed with the trunk elevated. The catheter was ordered to be used three times in the twenty-four hours; the wound to be syringed three times a day, and also after every evacuation, with a 5 per cent. boroglyceride solution; and a circular water-cushion, with marine lint filling the central aperture, to be kept under the pelvis. Four inches of the whole circumference of the intestine had been removed. The temperature records on the mornings of the next few days were as follows:—Feb. 6th, 101·4° F.; 7th, 100°;

8th, 100°; 9th, 99·6°; 10th, 98·6°. On February 11th two copious evacuations took place without medicine. The temperature subsequently did not rise above 99°; the bowels acted as a rule without aperient, and the patient rapidly regained health. She was not allowed to leave her bed till April 25th, and after two days was again sent back to it. On May 13th the rectal wound had entirely healed, but at the anal orifice there was a slight superficial excoriation. There was complete control of the evacuations, except when diarrhœa existed, and no difficulty whatever in defecation. The anal opening barely admitted the tip of the forefinger, a plug of intestinal mucous membrane filled it, and was visible externally. A small part of the recto-vaginal septum had sloughed away, leaving an opening into the vagina anterior to the new anal opening. The general health was good, and the patient was allowed to get up. On June 3rd it was found necessary to excise a recurrent ulcer of about the size of a threepenny-piece at the margin of the anal opening, and a smaller one on the fringe of mucous membrane at the edge of the vaginal perforation. Potassa fusa was subsequently applied rather freely. On July 8th the wounds had healed. There was necessarily much more rigidity at the anal orifice than before the second operation, and the patient could not retain her evacuations so well. On the 29th the note was: "No aperient has been taken for a week. The patient is very comfortable, with evacuations two or three times a day, the anal aperture becoming much more dilatable (now of the diameter of a shilling), closed by valvular folds of mucous membrane. The recto-vaginal septum is almost entirely obliterated in front of the new anus." On the 31st the patient was discharged well, and, to the best of my knowledge, there has been no further recurrence. In a short time she was able to resume her situation as cook, to hold her evacuations perfectly, except when liquid, and go about without wearing even a diaper. No bougie had ever been passed or required.

Remarks.—A grave stigma rests on the operation for excision of the rectum; while greatly prolonging, and often saving, the patient's life, it yet frequently leaves him with a permanent and very painful burden, owing to the cicatricial contraction which is only too apt to ensue. The above case, in which several inches of the whole circumference of the bowel were removed, was surely just such a one in which this disability might have been expected almost as a matter of course. The patient's immunity from it I am disposed to attribute simply to her having been kept rigidly in bed from beginning to end of her necessarily tedious convalescence. At the outset of this case it appeared to me that in the filling up of a large chasm with new fibrous tissue, and in the adaptation of this to peculiar functions, perfect rest must be a most essential element of the process; that, on the other hand, movement and pressure must necessarily irritate the organising tissue cells, and so probably originate the painful after-condition of which we often read. It is, of course, impossible to decide from this single case whether the above supposition is correct; but the rarity with which rectal cancer comes before the surgeon in a sufficiently early stage for excision must be my apology for publishing it. For if we can obviate the painful results of cicatricial contraction by the simple plan of keeping the patient in bed throughout the tedious convalescence, a great point will have been gained in perfecting the operation in question.

Norfolk-terrace, W.

TWO CASES OF POISONING BY CARBONIC OXIDE; RECOVERY.

BY JAMES MILLAR, M.D., C.M.

EARLY one morning in December last I was hastily summoned to attend two young men several miles in the country, who had been poisoned by coal gas. I could scarcely believe the messenger, but he insisted that such was the case. On my arrival I found two young men lying on the floor, rolled in blankets and packed with hot bottles. A. was of dark complexion, twenty-one years of age; and B. of fair complexion, nineteen years of age. On the previous night a fire composed of coal and coke had been kindled in their bedroom, and they were told not to close the door when they went to bed, because the room would be filled with smoke if they did so. A. went to bed, leaving the door of the room open; but B., having fallen asleep by the fire, rose in a sleepy state and closed the door. Both had been in bed for a considerable time, when the occupants of the next room were awakened by their stertorous breathing. They were unconscious, and had vomited freely during the night. The other inmates of the house had applied friction to the surface of the body, mustard to the legs, and hot bottles all round the body. When considerably shaken B. could speak, but immediately relapsed after giving an answer to a question. A. had never spoken, and could not be roused, and when I arrived all hope of his recovery had been given up. Both were cold and clammy, the surface of the body pale, and the conjunctivæ and mucous membrane of the mouth, &c., bright red. Both lay with their legs crossed and rigid. A. had his right arm so firmly flexed on his chest that it was almost impossible to unbend it; he was breathing stertorously. The conjunctivæ were insensitive to light and the pupils dilated. Pulse 40 per minute, sluggish, and easily compressible; respiration slow and laboured, and he could not be roused. B. had a small quick pulse, no stertorous breathing, pupils contracted. He could be roused for half a minute at a time, but not longer. He then complained of pain in the back and head, and relapsed into his former state.

At first I thought the poisoning must be due to something else, but from minute and careful inquiry, and the appearance of the patients, I was perfectly satisfied as to the cause. What to do had to be decided on at once. Friction and warmth to the surface of the body had been already tried, and were again had recourse to, but without any benefit. Artificial respiration was tried for some time, but had no good effect. A small quantity of brandy was poured into B.'s mouth, which he swallowed. The muscles of the lower jaw of A. were in a state of clonic spasm. His mouth was opened with difficulty and a little brandy poured in, which he also swallowed. The brandy caused vomiting in both cases, of which the patients were quite unconscious. The brandy was repeated. Ammonia, strong tea, and other stimulants had the same effect; they all caused vomiting and produced further depression. The doors and windows had been previously opened, so that there was plenty of fresh air. Venesection might have been done, as some recommend; but I have always failed to see that removing half the quantity of impure water from a vessel makes the remaining half purer. I believe venesection with transfusion would have been of service, but I was not prepared for that single-handed. Seeing carbonic oxide forms such a stable compound with the hæmoglobin of the blood, I thought a direct stimulus to the muscles of respiration might be of service, so with the end of a wet towel I commenced to flap the chest of B., when he soon began to cry out and sit up; this had a beneficial effect. After a further prolongation of the same process on A. there were a few deep inspirations, then he began to strike out in all directions, opened his eyes, sat up, and asked the cause of the disturbance. Both being now perfectly conscious, they were put to bed in another room, and after a few hours rest awoke with slight headache and feeling a little giddy. Next day they were perfectly well, with the exception of slight pain in the back and legs.

I am sorry my notes of two very interesting cases are so imperfect, but I had no time to take notes at the moment, and, having two patients to attend to at once, it was impossible. What I wish to draw attention to is the fact that stimulants made the cases worse, and, as latest authorities tell us, artificial respiration alone in such cases is useless. I believe what is wanted in such cases is a stimulus to the muscles of respiration, and the proceeding I have mentioned will be found to answer very well, where there is no time to procure assistance for the performance of such operations as venesection with transfusion, &c.

Arbroath, N.B.

HOSPITAL FOR EPILEPSY AND PARALYSIS.—At a meeting of the governors and supporters of this institution, which was held on the 25th inst., it was stated that there had been a marked increase in the number of in-patients during the year, the total having been 141, as compared with 78, 64, and 125 in the preceding three years, whilst the "attendances" of out-patients had been 7688, as compared with 7531 in 1883. The receipts from all sources during the year were £2439, out of which there remained a balance of £80, or the same as at the close of the preceding year.

A Mirror
OF
HOSPITAL PRACTICE,
BRITISH AND FOREIGN.

Nulla autem est alia pro certo noscendi via, nisi quamplurimas at morborum et dissectionum historias, tam aliorum tum proprias collectas habere, et inter se comparare.—MORGAGNI *De Sed. et Caus. Morb.*, lib. iv. Proœmium.

MIDDLESEX HOSPITAL.

A VERY LARGE UTERINE FIBRO-MYOMA, TOGETHER WITH THE UTERUS, ITS APPENDAGES, AND BOTH OVARIES, SUCCESSFULLY REMOVED BY ABDOMINAL SECTION.

(Under the care of Mr. HENRY MORRIS.)

THIS case will be found interesting from several points of view, and illustrates well the modern advance of surgery in the direction of the removal of large uterine tumours by abdominal section, and is a good example of the mode of doing so, and of the after-treatment. It will be seen that the pedicle was secured by a clamp, and retained outside the abdomen, in contrast to the treatment of the pedicle in ovariotomy, which is secured by means of silk ligatures, and replaced in the abdominal cavity. Some prefer the use of a drainage-tube in addition to the extra-peritoneal treatment of the pedicle after removal of uterine tumours. The mortality after the removal of uterine fibro-myomata has been very high. Dr. Bigelow, in March, 1884, collected a list of 359 operations, the records of which had been published, with only 227 recoveries, there being a mortality of more than one in three. Should the cases which have been operated on during the last year be added to the list, the percentage of deaths will be found considerably reduced. Removal of the uterus and its appendages for fibro-myoma cannot be classed with those cases in which it is removed for cancer. In both the mortality is high, but when the former has been removed the patient need fear no recurrence, whilst in the latter recurrence usually takes place in a painful form within a few months, and the general opinion of the profession appears to be that the operation for cancer should be abandoned. For the report of the case we are indebted to Mr. W. Roger Williams, surgical registrar.

The patient, a moderately nourished, healthy looking, fair complexioned woman, aged forty-eight, was admitted with a large abdominal tumour. She complained of weakness and of a feeling of sinking at the pit of the stomach, and of pain in the left iliac region. On examination the whole abdomen was greatly distended, especially at its lower part. The greatest girth, a little below the umbilicus, measured forty inches. A large, smooth, elastic, but non-fluctuating mass could be felt, filling almost the whole of the abdomen; it was slightly movable. There was tenderness in the left iliac region. On percussion of the front of the abdomen, with the patient supine, dulness extended from the symphysis pubis to within two inches of the xiphoid, in the middle line. Laterally the dulness extended over a widening area from above downwards, until it included the whole of the front and lateral parts of the abdomen. Both loins were resonant. On vaginal examination the os uteri was very high up, almost out of reach of the fingers. There was no vaginal discharge. The patient says she first noticed a slight swelling at the lower part of the abdomen fifteen years ago, but it was not more on one side than the other; this has since slowly increased. It caused her no inconvenience, except from its weight and bulk, until a few months ago, when she became subject to occasional attacks of pain in the left iliac region. During the last month she has suffered much from this pain. The day before admission she fell and sustained a scalp wound, but thinks that the abdomen was not injured. Her previous health has been good; she can recollect no serious illness since childhood. She married at twenty-five, and had one miscarriage three years afterwards. She has never since been pregnant, though she has continued to live with her husband. The catamenia first appeared at the age of fourteen and a half, and continued regular until she was forty-six years; since then she has occasionally seen a little sanious discharge at irregular intervals. Of her parents she knows nothing. She is one of a family of four; a sister died of cancer of the uterus, aged forty-four; the others are dead, but she does not know the causes of death. She was born at Cripplegate, London. She had been for eight or nine years under the occasional observation and treatment of Mr. Morris, who was at length determined to the operation by the constant and often severe pain in the left iliac fossa which had of late been suffered. This pain was aggravated by the slightest movement, and was not completely relieved by absolute rest in bed. Nearly a month after admission, during the greater part of which time she had been kept in bed, the operation was performed. A longitudinal incision two inches long was made in the median line of the front of the abdomen, midway between the umbilicus and the pubes. On examination of the tumour through this wound it seemed to be free from adhesions in front. The incision was prolonged a little upwards and downwards. When proceeding in the latter direction care was taken to avoid injuring the bladder. This organ, however, never came in the way during the operation. The great omentum was now found to be adherent to the upper part of the tumour, and in it there was a cyst containing clear fluid. In raising the tumour out of the abdomen a small rent was made in its left side; immediately the blood gushed out in a torrent. It was arrested by pressure with the thumb. The external incision was further extended upwards; it was now six inches and a half long. The bowels were protected by flat sponges in the peritoneal cavity. The tumour was then turned out of the abdomen with the omentum still adherent. The latter was clamped and divided; its bloodvessels were very large; there were six or seven veins as large as the external jugular. The tumour was now held to the uterus (which was raised high out of the pelvis) by a pedicle about an inch and a half in diameter. This was clamped with Kœberlé's serre-nœud, and the mass was cut away. It weighed nineteen pounds. It was a solid tumour, for the most part smooth on the surface, but presenting at its lowest part several rounded nodulations. Here was the body of the uterus, greatly enlarged, with half a dozen fibroids in its walls, varying in size from a small walnut to a large orange. Portions of each Fallopian tube were also adherent to it; but the bulk of the tumour was due to a single enormous fibro-myoma, presenting the ordinary characters of that kind of growth. Both ovaries and the remains of the Fallopian tubes were next removed. The left ovary contained five small cysts. The left Fallopian tube was greatly distended, tortuous, and adherent to the left side of the pelvis, so that it could not be entirely removed. The right ovary was normal. The division of the pedicle had passed through the cervix uteri. On examination of the stump it was found to contain three small fibroids; these were enucleated. Lawson Tait's clamp was then applied to it close above the vagina, and the distal part was cut off. The abdominal wound was closed by superficial and deep sutures, and the pedicle was left projecting from its lower angle. The wound was dressed with boracic lint and iodoform wool, and over these the usual abdominal flannel binder. The operation lasted about an hour. Chloroform was commenced at 9.45 A.M.; the patient was comfortably in bed by 11.10 A.M. During the first week after the operation the temperature ranged at about 100° F.; it never went above this. During this period all urine had to be drawn off with the catheter. It was turbid, alkaline, and contained muco-pus. At first she complained of pain, thirst, and flatulence; and she was occasionally sick. Morphia suppositories and hypodermic injections were administered. On the third day a troublesome hacking cough set in, and on that day the dressing was first changed. Subsequently it was changed every day for a week, and then every other day. During the first three days after the operation she took only small quantities of ice and milk; on the fourth day some jelly beef-tea was added; on the sixth a slice of bread-and-butter, and subsequently other things. Purulent vaginal discharge was noticed on this day, so a plug of iodoform wool was introduced into the vagina and changed daily. During the second week the temperature ranged from 98° to 99° F., and subsequently it remained nearly normal. On the first day of this week eight of the deep sutures were removed, and two of the superficial ones. The bowels were first moved about the middle of this week after two enemata. Catheterism still required, though occasionally she micturated without it. On the eighteenth day after the operation the clamp was taken off and the distal fragment of the pedicle came away, and the last two of the deep sutures were removed. After this catheterism

was seldom necessary. In a week the wound was quite healed, with the exception of a few granulations at its lower part. She left the hospital convalescent five weeks later.

MANCHESTER ROYAL INFIRMARY.

COEXISTING RENAL AND BILIARY CALCULI, CHOLECYSTOTOMY; DEATH; NECROPSY; REMARKS.

(Under the care of Mr. G. A. WRIGHT.)

FOR the following notes we are indebted to Mr. V. Wigglesworth.

Thomas C——, aged forty-four, was admitted under Mr. Wright's care on Jan. 2nd, 1885. He had previously been an out-patient for some weeks. He had been a healthy, temperate man till two years ago, when he was seized with severe pain in the right groin. At this time his urine was muddy; but it is doubtful whether this was from the presence of blood or merely from lithates; however, the pain decreased when the urine was thick. This state of things went on for a year with intermissions. Seven months ago he entered the Leeds Infirmary, and was discharged after a fortnight, temporarily relieved. A month later the pain returned, and he therefore came to Manchester as an out-patient. The diagnosis was made of probable renal calculus. He improved for a time with lithia, but soon the pain and inability to do any work made something more radical necessary. Mr. Wright therefore took him in. On admission he was a rather thin, worn-looking man, whose main complaint was of a fixed pain about midway between the right kidney and the bladder in front; there was sometimes pain in the right loin. He was always able to pass urine easily and without pain; no gravel; he never had jaundice or any other liver trouble; bowels natural. He was quite unable to work. Urine strongly alkaline, with large phosphatic deposit; no albumen, blood, &c. There was tenderness on pressure over the painful spot, but no tumour could be felt. The right kidney region was distinctly more tender and resistant than the left, but no enlargement could be felt. After admission he was somewhat easier while lying in bed, but on getting up for an hour the pain was increased. Diagnosis as before: calculus probably in ureter. The urine (sp. gr. 1014) became acid on taking benzoate of ammonia, but no improvement resulted. On January 29th the right kidney was explored through a lumbar incision made first obliquely downwards from the costal margin, and subsequently enlarged by incisions along the last rib and crest of the ilium. On reaching the kidney it was not enlarged, but an abnormally hard spot was felt in the region of the pelvis. Next the fingers were passed downwards and forwards after making the lower incision towards the painful spot in the groin, and here a hard mass moving freely with respiration was felt. With some difficulty this was drawn up to the wound, and was at first thought to be a calculus in the ureter. The cyst wall covering it was incised and the calculus removed. It was then found to be a gall-stone lying in a large cavity with smooth walls—the gall-bladder. The edges of the opening in the bladder, which contained no fluid, were stitched to the skin, and as the stone corresponded almost exactly to the seat of pain the kidney was not further examined. The gall-stone was as large as a pigeon's egg. On the second day the patient developed evidence of acute peritonitis, and gradually sank, dying on February 3rd. The last dressing, on February 2nd, showed slight bilious discharge.

Necropsy.—Lungs: Both bases congested; some old adhesions. Abdomen: Recent acute peritonitis; lymph and pus most abundant in the right loin. Gall-bladder pulled down and adherent by its apex to the wound in the loin, to which it was united by sutures and recent adhesions; old adhesions, however, bound it down to the abdominal parietes nearly as low as the groin. The liver was drawn downwards and towards the right, and tilted, so that its upper surface looked almost directly forwards; it showed old marks of peri-hepatitis, but was otherwise healthy, though pale; it weighed fifty-six ounces. The gall-bladder was greatly enlarged and contained mucus, but no bile or gall-stones; the cystic duct was quite patent, and could have been obstructed only by the flexion resulting from the position of the liver and gall-bladder. Kidneys each weighed six ounces; the capsules were slightly adherent; cortex fairly normal; slight pyelitis in the left, more marked in the right. In the pelvis of the right kidney corresponding to the firm spot felt during the operation was a pyramidal calculus the size of a hazel nut, with its apex in the ureter; the stone was smooth, and apparently composed of uric acid. Bladder and ureter healthy.

Remarks by Mr. WRIGHT.—The case is remarkable from the unexpected coexistence of the two calculi, and we were led away from the correct opinion formed before the operation by finding the gall-stone, which apparently fully accounted for the pain, and which was practically his only symptom. I am not aware of a similar complication having occurred; though, as my friend and colleague, Dr. Steell, has pointed out to me, the coexistence of renal and biliary calculi is common, as recorded by Murchison and others. Probably in any case, with both kidneys damaged, a bad result would have followed; but the fact is worth bearing in mind. Mr. Whitehead and Mr. Southam helped me at the operation.

Medical Societies.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.

Discussion on Cholera.

AN ordinary meeting of this Society was held on Tuesday last, Dr. George Johnson, F.R.S., President, in the chair. The meeting might well be termed extraordinary, both in point of the number of individuals present and in the wealth of the display of specimens illustrating the bacteriology of cholera. Specimens were exhibited by Dr. Klein, Mr. Watson Cheyne, Dr. Warden, Dr. Heron, and Dr. Thin.

Dr. GEORGE JOHNSON read a paper on the Etiology, Pathology, and Treatment of Cholera. The object of the communication was to submit for discussion the main points relating to the etiology, pathology, and treatment of that disease. Cholera is believed to result from the action of a specific contagium or morbid infecting agency, which may enter the system either with the air through the lungs, or with food, water, or other liquids through the alimentary canal. Facts were mentioned which tend to prove that the contagium enters the circulation, where it probably undergoes increase at the expense of some blood constituents, which are then excreted through the mucous surface of the alimentary canal, and are ultimately expelled by vomiting and purging, and thus the patient recovers. In the more severe cases collapse occurs. That collapse is not the result of the liquid discharges from the system is shown by the notorious fact that in the most rapidly fatal cases there is rather an inverse than a direct ratio between the degree of collapse and the amount of the liquid discharges. A complete arrest of the discharges during collapse is a sign of fatal import; while, on the other hand, there is a continuance of the discharges in a greater or less degree during recovery from collapse. The effect of various and opposite modes of treatment is also inconsistent with the theory that the worst symptoms are the result of the liquid discharges. Those methods of treatment appear to have been most successful which have been least repressive in their tendency. The sudden onset and the rapid passing away of extreme collapse are inexplicable by copious exhausting discharges. That the main and essential cause of choleraic collapse is a greatly impeded circulation through the lungs is proved by the appearances found after death, and by the complete explanation thus afforded of the chief symptoms of collapse. When the chest is opened soon after death in collapse, the left cavities of the heart are found nearly empty, while the right cavities, the pulmonary artery, and the systemic veins are distended with blood. Extreme contraction of the pulmonary arterioles is the only probable explanation of this arrest of the circulation. The blood thickening is the consequence, and not the cause, of the impeded circulation. The small stream of blood through the lungs during collapse, with the resulting defective oxidation, explains the suppression of bile and urine, while in the case of nursing women the mammary secretion, which is not an oxidised product, continues. The marvellous temporary relief afforded by injecting a hot saline solution into the veins is due to the warmth of the liquid relaxing the arterial spasm, and thus allowing the blood to pass on; while the beneficial effect which has often resulted from venesection is explained by its lessening the distension of the right cavities of the heart, and so increasing their contractile power. Reference was made to

other causes of arrested pulmonary circulation—pulmonary embolism, exclusion of air, and the inhalation of nitrous oxide gas. The intestinal discharges are the means by which the disease is conveyed from the sick to the healthy. In this respect there is a close resemblance between cholera and enteric fever. With regard to prevention, it is believed that quarantine is as powerless to exclude cholera as to shut out typhoid fever. The true preventive means consist in the enforcement of cleanliness and the complete disinfection of the choleraic discharges. An indiscriminate opiate and repressive treatment in the diarrhœal stage is believed to increase the danger of collapse by preventing or retarding the escape of the morbid poison. An evacuant or cleansing method is consistent with the true theory of the disease, and has been amply justified by a large experience, more especially by such results as have been recorded by Drs. M'Cloy and Robertson in a paper published in the fiftieth volume of the Royal Medical and Chirurgical Transactions. The object and the results of a rational evacuant treatment are, not to increase the discharges from the blood into the alimentary canal, but to prevent the retention and to quicken and facilitate the expulsion of offensive morbid secretions from the stomach and intestines. That treatment of choleraic diarrhœa is the best which most speedily arrests the discharges without subsequent ill effects. On the other hand, the only safe use of opium is to allay irritation after the expulsion of noxious materials.

Dr. KLEIN said that there could be no doubt that epidemics of cholera were the result of importation from localities the seat of cholera. The point to be determined was, What was the infective agency? In some cases the linen and clothes were the means by which cholera was conveyed, and an epidemic investigated by Hirsch at Wildhausen in 1873 showed that importation had taken place from the United States; the clothes and linen came from the infected locality; these articles had not been worn by cholera patients. Again, persons not sick of cholera may convey the disease from one part to another, which proved that the infective agency was not necessarily associated with the cholera dejecta. The infective agency must be a living entity, because it is capable of undergoing self-multiplication, and nothing merely chemical possessed this power. The question had to be decided whether the infective agency was identical with the virus of cholera; whether cholera belonged to the class of true infectious diseases, like anthrax, tuberculosis, gonorrhœa, &c. Or whether the micro-organisms were the generators of the actual virus; whether the infective agency lived and multiplied outside the body, as was the case in septic poisoning, where bodies called ptomaines were the real virus. He believed that cholera belongs to the second class of infectious diseases. The incubation period of cholera may be half an hour to a few hours, and, if so, it was impossible to believe that in such a short space of time micro-organisms could accomplish the result. A chemical ferment formed outside the body, and when absorbed was the real poison at work in cholera. This chemical virus acted on the blood and nervous tissues, and gave rise to all the phenomena of cholera. From all his experience, he concluded that the bodies of patients suffering from cholera do not contain organisms which could be regarded as specific and pathogenic, and in this he was directly opposed to Koch. In all true infectious diseases the organisms were present in the morbid products in great numbers, but such was not the case with cholera. When it was remembered that linen not soiled can convey the infection, and that water which had come in direct contact with choleraic discharges did not produce the disease, he considered that his position was rendered still more secure. In ordinary non-epidemic times emanations from sporadic cholera gain access to the water in tanks, and this water is drunk by by those who dwell round the tanks, yet no epidemic appeared, as he could testify. Benares, which was a filthy town, was a site where sewage was discharged into the river, and where the natives, bathing in the Ganges close to the outlet of a sewer, and even drinking the water, yet remained free from any epidemic of cholera. These facts proved that the evacuations of cholera were harmless. In hospitals devoted to the treatment of cholera the attendants remain unaffected as a rule; but, as Pettenkofer pointed out, the hospital itself sometimes becomes a cholera locality, and then the residents in the hospital are as liable to cholera as other individuals. The virus of cholera is not present in or dependent on the dejects of cholera, but its formation is dependent upon locality, as Pettenkofer has maintained. These views were in irreconcilable antagonism with contagionists such as Koch. In beginning his researches on cholera, Koch was struck by the peculiar shape of the comma bacillus, and it was the morphological peculiarity which first led him to say that the comma bacillus was specific; but since the same shaped bacillus had been found in other normal and abnormal conditions, Koch had altered his standpoint. The more typical, the more acute, the case of cholera, the more numerous were the comma bacilli, according to Koch. But he (Dr. Klein) had not confirmed the statements of Koch, for he had found that the bacilli were exceedingly scarce in some fatal cases of cholera. Koch had asserted that the bacilli were chiefly found in the lower part of the ileum, and that Peyer's glands were specially affected in this region, whilst the intensity of the disease diminished the further we went away from the lower part of the ileum. The appearance was not different at this part of the ileum, so far as he (Dr. Klein) had made out, for the whole small intestine was filled with clear watery fluid, in which mucous flakes floated, and there was no distinct difference between one part and another of the small intestine. Though he agreed that the comma bacilli specially affected the lower part of the ileum, the bacilli could not be specially connected with the disease, seeing that the whole of the intestine was equally affected, and yet the bacilli prevailed only at one part. Nor was it possible that the comma bacilli produced a chemical poison, for the quantity of the poison should be dependent on the number of bacilli; but in some fatal cases the comma bacilli were exceedingly scarce. With regard to the presence of the bacilli in the wall of the intestine, he denied the statement, and had found no other organism in the tissue of the intestine. This fact was also testified to by the French Commission, which had been able to verify the presence of the bacilli only in dead tissues. So that having regard to these points, and to the scarcity of the bacilli, he concluded that the bacilli can have nothing to do with the cause of cholera. Koch had affirmed that in the mode of their growth in cultivation media this comma bacillus was special and peculiar, and cultivation served to isolate it from other kinds of bacilli. Even here Dr. Klein was not disposed to agree with Dr. Koch that their growth was peculiar and specific, for he knew of other organisms found by Dr. Timothy Lewis in the salivary secretion which presented similar appearances, as the tubes shown by him at the meeting were held clearly to demonstrate. The comma bacillus, if it were a definite species, could not be shown to be pathogenic by its behaviour in solid nourishing material, though by the growth in solid media we could recognise with the unaided eye different varieties of comma and other bacilli. Referring to the water-tank incident in Calcutta, he said that there were 200 families living in huts around this tank, and on February 13th, 1884, Koch found comma bacilli in the water; but the epidemic had lasted more than a month, and the cholera dejecta were constantly thrown into the tank; so that he thought it logically absurd to conclude that the bacillus was the cause of the cholera. Now he (Dr. Klein) was present at the beginning of November, 1884, at the same tank, and not one case of cholera occurred in the dwellers around the tank, and yet the comma bacilli were present in the tank and the water was unquestionably drunk by the people. Coming next to the experiments on animals, he said that Koch had had nothing but negative results. Nicati and Rietsch had obtained some results; but was it cholera that they had induced in animals as the result of the injection of comma bacilli? Ligature of the bile-duct was practised by these observers, and it was suggested by Friedländer that this had been done because there was no bile in the intestines in cholera. He suggested that tying the ureter might just as well have been done on the plea that there is suppression of urine in cholera. In some of these experiments on animals positive results were obtained, and the symptoms resembled those met with in what the French term "choléra foudroyant." In these cases (dogs were used) the comma bacilli grew and multiplied in the small intestine, but he would have been surprised if such had not been the case. He questioned, however, whether the induced disease was cholera; might it not have been a form of septicæmia? In guinea-pigs, also without ligature of the bile-duct, positive results had been obtained, and at the post-mortem examination detached epithelium, mucous flakes, and hyperæmia of the mucous membrane were discovered; but such appearances were very commonly witnessed in septicæmia. Koch, working afresh on dogs

without ligaturing the bile-duct, had succeeded in causing certain symptoms followed by death in three days, and here the intestines were hyperæmic and the canal contained a watery fluid. But were the experiments performed antiseptically? In India he (Dr. Klein) had injected syringefuls of the comma bacilli into the jugular vein, the intestine, under the skin, and into the peritoneum of rodents, cats, dogs, and monkeys with purely negative results; he had also employed cultivated comma bacilli. Mr. Horsley and Mr. Dowdeswell had worked at the subject also, and with similar negative conclusions. But even allowing that the experiments on animals yielded sometimes genuine results, does it prove that the organisms are pathogenic as regards man? Rodents were liable to a form of septicæmia due to organisms which, however, were not pathogenic to man. He next referred to the existence of certain minute straight bacilli in connexion with lymph corpuscles and mucous corpuscles. He had detected these organisms only in cases in which the autopsy was made within two hours after death, and they were the only organisms discovered which had any relation with actual living tissues. He ventured to think that if Koch had detected these minute straight bacilli, he would have regarded them as pathognomonic of cholera. These bacilli were detected by the ordinary methods of staining. He suggested that Koch had missed them because his autopsies had not been made as early as they might have been done. These bacilli grew chiefly on the surface of the solid media, They did not liquefy the gelatine like putrefactive bacteria In conclusion, he summed up his views by asserting that the infective agency of cholera was extraneous to the body, that it had its breeding-ground in a suitable soil, and that it produced a chemical virus which was the real cause of cholera.

Mr. WATSON CHEYNE at the outset objected to the tone in which Dr. Klein had reviewed Koch's work. He then passed on to say that Dr. Klein's view with regard to the importation of cholera hardly explained how it was that an epidemic appeared on an island immediately after the arrival there of a patient suffering from cholera, seeing that the dejecta on Dr. Klein's showing contained merely the products of the action of the virus and none of the infective agency itself. But it was with the bacterial aspect of the subject that he specially wished to deal; and these phases of the question had to be treated. Was there a definite organism associated with cholera? Was it always present in cholera? Was it ever found anywhere else? With regard to the first point, he maintained with Koch that there was a definite organism associated with cholera; the specificity of the bacillus did not rest alone on its shape, but on the peculiarity of its mode of growth, in the way in which it grew at different temperatures, and on different substances. It was on the sum of all these characters that Koch had ventured to call the bacillus a specific one. It was to be regretted that Dr. Klein should ever have supposed that Koch meant to diagnose an organism solely on its morphological characters. Moreover, as Koch had long ago made out, the bacillus of glanders also presented the comma shape. Neither was growth in a particular manner ever regarded by Koch, or anyone else, as proving an organism to be pathogenic. The peculiarity of the method of growth merely served as a means of recognition of an organism. With regard to the second question, most observers agree that the bacillus was always present in cases of Asiatic cholera, though there were discrepancies of statements as to the numbers and site of the organisms. As to the method of estimation of numbers, if the microscope were used the number would be smaller than really existed; moreover, when growing rapidly there were fewer bacilli to be found which retained the comma shape; estimations by the method of cultivation were the only satisfactory ones. In the evacuations of an exceedingly acute case, from which Mr. Cheyne made cultivations within a quarter of an hour of their passage from the patient, he found that 95 per cent. of the organisms were comma bacilli; whereas in the dejecta themselves the comma bacilli were very few in number, but small straight bacilli were very numerous. The more acute the case the fewer comma bacilli would be found. The existence of a straight stage of the comma bacillus would probably explain a good deal of the controversy on the score of numbers. Koch had found bacilli in the intestinal wall, but neither Dr. Klein nor he had been able to find them, and he had examined two cases specially. But the comma bacilli are difficult to stain in the tissues. Koch had always found them there, but only faintly stained. Was it not possible that Koch was more efficient in the use of the methods than he or Dr. Klein? The next cardinal question was, Are the bacilli ever found anywhere else? Observers had found them in every case of Asiatic cholera that had been examined, whether in India, Egypt, Italy, France, or Spain. He had examined the saliva, evacuations, putrefying materials, and dejecta of dysentery, and had failed in every case to find the comma bacillus of Koch, or to find bacilli which in every particular agreed with the comma bacillus of Koch. The statement to the same effect made by Koch last summer was still adhered to by him. In dysentery and other diseases large numbers of comma bacilli may be found, but were they identical with Koch's? There were Finkler's, Deneke's, and Müller's comma bacilli, and he asked which one had Dr. Klein found? None of these bacilli exactly agreed with the bacilli of Koch in their mode of growth on potatoes, &c. He asked Dr. Klein in what number of cases in which it was on microscopical evidence alone, and in what number of cases it was on the mode of growth, and other characters, that he based his assertions with regard to the comma bacillus. In cholera nostras the comma bacilli did not grow in the same way as the bacillus of Koch. The bacillus found in the salivary secretions appears to be very like that of Koch, but Koch and his pupils, as well as he (Mr. Cheyne), had entirely failed to cultivate the comma bacillus from the saliva. Müller, in the *Deutsche Medizinische Wochenschrift*, had written to the same effect. This observer had found a comma bacillus in a carious tooth, which could not, however, be cultivated in the same media as those in which Koch's bacillus could be cultivated.

Dr. KLEIN interposed to say that he could not succeed if the same media were used as those which Koch used.

Mr. CHEYNE, continuing, said that that just proved his point. Dilute acids and putrefaction prevented the development of the comma bacillus of Koch. With regard to the fact that the inhabitants about the water tanks did not take the cholera, another explanation than that offered by Dr. Klein was possible: they may not have been in a condition to take the disease. Dr. Klein probably believed that the bacillus was the cause of tuberculosis and of anthrax, and yet although many individuals were exposed to the influence of the bacillus, but few became the subjects of tuberculosis or malignant pustule. As to the experiments on animals, Dr. Klein seemed to think that the positive results obtained were due to a septicæmia; in two cases out of fifteen or sixteen experiments he (Mr. Cheyne) had obtained a positive result; the symptoms during life were diarrhœa, cramps, and collapse; at the autopsy the intestines were hyperæmic, Peyer's patches were swollen, and in one of them a hæmorrhage was seen; comma-shaped bacilli were found in abundance in the contents of the intestines. It was easy to prove whether cases were due to septicæmia by making inoculations on other animals, and by examinations for the detection of an organism in the blood. All Koch's experiments on animals were conducted with complete antiseptic precautions. He considered that Koch's position had remained so far unassailable.

Dr. WARDEN gave a full account of the antiseptic precautions adopted by Koch. The abdomen was first shaven, and then carefully washed with a carbolic solution; all the water used was thoroughly boiled; the hypodermic syringe was provided with an asbestos plunger; the instruments and hands were soaked in carbolic solution. Crucial experiments were made on other animals, the only difference being that the comma bacilli were not injected. Experiments with Finkler's and Müller's bacilli yielded negative results. In a paper read before the German Board of Health Koch described small and large straight bacilli as having been found by him in cases of cholera.

Sir JOSEPH FAYRER made a few remarks, in the course of which he stated that in his opinion we were not one iota nearer the truth as to the *causa causans* of cholera, though he acknowledged his obligation to the gentlemen who had so largely contributed to the discussion.

MEDICAL SOCIETY OF LONDON.

Repair after Gangrene of Scrotum.—Choreiform Movements of Long Duration.—Etiology of Phthisis.

AN ordinary meeting of this Society was held on Monday last, Dr. W. Miller Ord, President, in the chair.

Mr. WALTER PYE showed a living specimen illustrative of the extraordinary powers of Repair after Gangrene of the

Scrotum. The patient was a man aged fifty, whose illness began with shivering, followed by inflammation about the penis; gangrene was present twenty-four hours later; in four days the gangrenous swelling burst and discharged an offensive fluid; it was at this time that the patient was first seen. There was most extensive gangrene of the penis, scrotum, and perineum, and external urethrotomy was performed. The very large slough came away on the ninth day, leaving the testes and penis bare. An abscess appeared a week later in the left iliac fossa, and this burst a week later. In the course of two months the parts exposed became completely covered by natural processes alone.—The PRESIDENT suggested that noma might have been at the root of the gangrenous condition.—Dr. SANSOM thought the case hardly presented the history which usually obtained in noma; there was none of the characteristic induration.—Mr. PYE was not certain that the disease was not one of spontaneous gangrene.

Dr. BEEVOR showed a case of Clonic Spasms of the Upper Limbs, with Anæsthesia of the Left Side, in a girl aged sixteen, who had had scarlet fever ten years ago, and six months later began to have twitching of the head and face to the left and movements in both arms. Seven years ago Dr. Barlow observed the choreiform movements affecting all the limbs. The movements have persisted ever since. A year ago the left arm was alone affected with pronation, extension of elbow, and adduction of elbow, but voluntary movements were possible; there were occasional rapid twistings of the head and both eyes to the left. Last October the right arm became affected in a similar way, and the left arm became anæsthetic and analgesic. At present the movements of the left arm were much quieter, but the limb was almost completely paralysed, anæsthetic, and analgesic. The anæsthesia also affected the whole left side of the trunk, head, and neck, as low as the level of the umbilicus; in the area of complete anæsthesia all forms of sensation were completely abolished. The face was only slightly anæsthetic; the left conjunctiva, left nostril, mouth, tongue, and fauces were deficient in sensibility. The muscular sense of weights was lost in the left arm. The sight was not affected. There was no optic neuritis. Menstruation occurred but twice a year. There was no cardiac disease. In the arms the muscles affected corresponded to those involved in Ferrier's and Yeo's experiments on the sixth and seventh cervical nerves. The case was probably of a functional or hysterical nature. The movements were irregularly rhythmical, at the rate of about sixty to eighty per minute, and ceased during sleep; though simulating chorea, they were much more regular, and affected only certain muscles; the movements of one arm were synchronous, but the two arms did not move, as a rule, at the same time. The diagnosis was supported by the character of the patient, the variation of the spasms, and the supervention of anæsthesia after so long a duration.—The PRESIDENT said that the case raised a good number of hypotheses. He suggested that during the coming year the clinical value of the deep reflexes as a means of diagnosis might be discussed with advantage. Had "transference" been tried?—Dr. HADDEN said that he had seen three very similar cases, but they came on much more rapidly; all were hysterical; the affection was like "canine chorea," which, however, ended in paralysis, and proved fatal as a rule. In the canine disease he had found areas of leucocytes around the capillaries of the spinal cord. Nerve-stretching might prove of value in Dr. Beevor's case.—Dr. BEEVOR believed that the case might spontaneously undergo rapid cure; he had not yet tried "transference."

Dr. BURNEY YEO read a paper on the Etiology of Phthisis. He said that one of the most considerable and interesting contributions to the inquiry into the etiology of phthisis that we have had of late years is to be found in Dr. Andrew's Lumleian Lectures delivered last year before the College of Physicians. He was not at one with the conclusions announced in those lectures. In admitting the bacillus of tubercle as the exciting cause of phthisis, Dr. Andrew's subsequent argument rests on the following assumption: that the bacillus of tubercle has an "independent" as well as "parasitical" phase of existence; and this assumption has borne the whole weight of the conclusion that phthisis is neither directly nor indirectly communicable! This "independent" phase of existence was no more than a pure assumption. Dr. Andrew's argument might be phrased thus: There is a bacillus of tubercle found existing as a parasite in certain men and animals; it is capable in its parasitic form of exciting phthisis in other men and animals, yet it never does so, for when it does so it is always in an "independent" phase of existence. All his (Dr. Yeo's) experience of natural phenomena led him to oppose such an argument. He considered that if one single case of phthisis has been or can be caused by an infective organism which has pre-existed in another person, the whole case of the non-contagionists is surrendered; for then the question is no longer one of communicability or non-communicability, but simply one of degree. He simply argued for the fact of communicability. He next criticised in some detail the views expressed by Dr. Douglas Powell at Belfast last year. He thought there was no evidence to support the notion that the bacilli were harmless. He believed that it was demonstrated as a fact that the bacillus of tubercle is not commonly or widely diffused even in a consumption hospital, and quoted some remarks of Dr. Hermann Weber on this subject. He narrated cases which proved to his mind that phthisis could be communicated. He quoted Dr. William Roberts to the effect that no candid person could read the report of the Collective Investigation Committee, and the detailed evidence on which it was based, without coming to these practically important conclusions: that no healthy person should be permitted to occupy the same bed with a sufferer from pulmonary consumption; that no person with an hereditary predisposition to tubercular disease should be allowed to have continued and intimate personal contact with a phthisical patient. Dr. Yeo combated at great length the arguments used by Dr. Andrew in criticising the report of the Collective Investigation Committee. He said that the appeal to clinical evidence in the present state of knowledge of the nature of pulmonary consumption could only furnish proof of the degree of communicability and the laws which govern it, and were it only one tithe of what it is, it would be sufficient to support the fact of communicability.—The PRESIDENT agreed in large measure with the conclusions contained in the paper.

OPHTHALMOLOGICAL SOCIETY.

Prevention of Blindness from Ophthalmia Neonatorum.—Nævus of Choroid.—Favus of the Upper Eyelid.—Tuberculosis of Cornea.—Evisceration of the Globe of the Eye.

A MEETING of this Society was held on the 12th inst., Mr. Jonathan Hutchinson, F.R.S., President, in the chair.

Dr. BRAILEY read the report of the special committee appointed to inquire into the Means for the Prevention of Blindness from Ophthalmia Neonatorum.

The special committee having considered the Registrar-General's letter to the Local Government Board referred to them at the last meeting, submit to the Society the following report: "That, as in the opinion of the Registrar-General, the reading over of a printed form by the registrars of births to the parents would entail a considerable expense, this may be dispensed with; and that, in place of this reading, the following notice be printed on all official documents issued to parents in relation to the birth, registration, and vaccination of children: 'If the eyelids become red and swollen, or begin to run with matter within a few days after birth, the child is to be taken without a day's delay to a doctor. The disease is very dangerous; and if not at once treated, may destroy the sight of both eyes.'"

Mr. HENRY POWER proposed and Mr. TWEEDY seconded that the deputation which already existed should be asked to wait upon the President of the Local Government Board with a view of laying before him the above recommendation of the Special Committee of the Ophthalmological Society. This motion was carried unanimously.

Mr. J. B. LAWFORD showed microscopic sections of Nævus of the Choroid. These were obtained from the left eye of a child aged eight, in whom there was an extensive capillary nævus of the same side of the face. The nævus involved the posterior part of the choroid surrounding the optic disc, and consisted of vascular channels of varying size, traversing the choroid in all directions. The retina was completely detached, stretching from the optic disc forwards to the posterior capsule of the lens. There was a large subretinal hæmorrhage. The lens was opaque and shrunken.

Mr. MCHARDY brought forward a case in which there was a rapidly extending isolated patch of Favus on the Upper Lid of a woman aged thirty-seven. It had the appearance of a

dry scabbed ulcer, and grew with great rapidity; it was excised, and the actual cautery applied. Microscopical sections and a drawing of the original disease were shown. The patient, who had completely recovered, was present.—Mr. JONATHAN HUTCHINSON said that he had seen cases of favus occurring in single patches on the skin of the body; the disease was intractable only when the scalp was affected.

Dr. C. E. BEEVOR showed a case of Opaque Nerve Fibres in a woman aged thirty-five.

Mr. W. LANG exhibited drawings of two cases of Detached Retina in the Yellow Spot Region. The patients were brother and sister; the sister was present for examination. He also showed a case of Detachment of the Retina at the Yellow Spot Region following a blow; and a third case of Central Choroiditis with Disseminated Patches in the remainder of the fundus.

Mr. STANFORD MORTON showed a case of Atrophy of the Choroid in a man aged fifty-five.

Messrs. JULER and ANDERSON CRITCHETT exhibited the case of Vesicle of the Cornea which they had shown at the December meeting. They had been unable to effect a cure, though they had tried every means known to them.—Mr. MCHARDY thought that until arsenic had been tried the case should not be regarded as incurable.

Mr. MCHARDY exhibited a man aged thirty-nine upon whom Argyll-Robertson's new operation for obstinate Ectropion of the Lower Lid, due to long-continued chronic conjunctival inflammation, was performed.

Mr. NETTLESHIP showed a case of Total Detachment of the Retina, including the yellow spot region. The affection was of several years' standing. There was practically no power of vision; even with glasses the patient could barely read 20 Jaeger.

Mr. ARTHUR BENSON read a paper on a case of Tuberculosis of Cornea and Iris. The patient was a girl aged eighteen, whose father had recently died of "decline," and whose sister was dying of the same disease. She had herself no physical signs of lung disease, but had enlarged lymphatic glands under the jaw. Two months previously the left eye, and six weeks later the right eye, became affected; greyish-yellow nodules formed in the cornea and iris, and increased in number and size. They resembled exactly the appearances seen in cases of tubercle of the iris, and in rabbits whose anterior chamber had been inoculated with lupus. The left eye was enucleated, and, microscopically examined, there were several nodules of a translucent grey colour in the substance of the cornea. They were situated external to the posterior elastic lamina, which, though extensively displaced and raised up by the masses, seemed to have resisted disintegration; the layer of endothelial cells on its aqueous surface remained intact. The neighbouring cornea was infiltrated, and its structure partly destroyed, the lamellæ being separated by masses of cell-growth. The nodules consisted of an agglomeration of round nucleated cells, in the centre of which a caseating area existed. Epitheloid cells were also abundant. In places there was an appearance as if several masses of cells had coalesced; the peripheral portions of each mass stained much better than the central. No distinct giant cells had so far been found. The nodules on the iris seemed very similar in structure. The sections prepared for detecting the specific bacilli so far yielded only negative results, but the examination had not been completed! The diagnosis was, so far, dependent upon the clinical history, the macroscopic appearances, and the anatomical peculiarities of the growth, and must therefore be left open to the possibility of error. Two inoculation experiments had failed to yield definite results. Sections of the growths, and of the inoculation growths, as well as drawings, were shown.—Mr. JESSOP asked how soon after the inoculation the rabbits were killed; whether the lungs were affected; whether any other method than that of Heneage Gibbes were used; whether any cultivations of the bacilli were made, and whether any growths were found in the choroid. He said that inoculation from pure cultivation into the anterior chamber was followed by tuberculosis of the iris and choroid as well as by general tuberculosis. So that in infection from the anterior chamber the body at large was affected, whilst in general tuberculosis of the rabbit the choroid escaped. Mr. Jessop also inquired whether the patient had any symptoms of general tuberculosis.—Mr. NETTLESHIP asked whether the growths had shrunk, and whether scraping had been practised.—Mr. J. HUTCHINSON said that he had seen cases in all respects like that of Mr. Benson's patient, with the exception that the cornea was not involved. At the suggestion of the President, a committee, composed of Mr. Jessop and Mr. Mules, was appointed to examine into the specimens submitted to the Society by Mr. Benson.—Mr. BENSON, in reply, said that one rabbit died after one week and the second one after two months; there was no tubercle in the rest of the body. Heneage Gibbes' method was the only one used. The patient showed no sign of tubercle in the system generally. No scraping had been done, and the shrinking of the untouched nodules could not be explained properly. There were enlarged glands at the angles of the jaw.

Dr. MULES (Manchester) read a paper on the Preventive Treatment of Sympathetic Ophthalmitis by Evisceration of the Globe, and the use of an Artificial Vitreous. In reviewing the history of the operation, he stated that Mülder and Græfe were working out the same operation at the same time as he was himself without any previous interchange of ideas. He pointed to the result of this new operation as a further proof of the correctness of the views advocated by Snellen, Leber, Brailey, and Max Kines, that travelling organisms were the cause of sympathetic ophthalmitis. The operation which he performed was identical with that performed by Græfe; but in addition to the operation of evisceration, Dr. Mules prepared the eviscerated globe for the application of an artificial eye, by the introduction of a hollow glass sphere or artificial vitreous, which was permanently retained; by this means the shape of the globe was maintained and very good movement obtained. The results, therefore, were æsthetically good. The operation was performed as follows. The patient was anæsthetised; the hand-spray was used, and the appendages thoroughly cleansed and disinfected with a 1 in 1000 solution of corrosive sublimate; the front of the eye was transfixed, and removed with a sharp knife at the corneo-scleral junction. He considered it better not to cut the conjunctiva. The contents of the globe were then emptied out, in any way that was convenient, taking special care to remove the ciliary body and choroid, leaving only a clean white sclera. The sublimate solution was to be allowed to run into the eye through a thin indiarubber tube, used syphon-wise, during the whole time the operation was in progress. The hand-spray was also employed as an additional precaution, and its use continued till the bleeding nearly or quite ceased. The sclera was then slit between the inferior and internal recti muscles, until the glass sphere selected would enter the cavity. A catgut drain (to be removed next morning) was introduced into the lower angle of the wound and the sclera was sewn up from above downwards. A layer of finely powdered iodoform was spread over the whole conjunctiva, and a dressing of wood-wool, in a double layer of Lister's gauze, was applied. As a precautionary measure, the patient was kept in bed for four or five days. The eye was dressed daily under the spray. If the wound were kept aseptic, the reaction was comparatively slight. If early suppuration ensued, the pain and distress were severe and prolonged. Too much stress could not be laid upon the necessity for antiseptic treatment, without which the operation should never be performed. Three sizes of artificial vitreous have been, so far, found to be sufficient.—Mr. HENRY POWER said the paper was valuable physiologically, as showing that little or no inflammation need result from the wearing of such a glass sphere; and it was valuable ophthalmologically, as showing how extremely good a stump for the application of an artificial eye could be got by thorough evisceration. He had seen Mr. Hancock perform the operation of evisceration in cases of glaucoma attended with hæmorrhage, and did not regard the operation as altogether a new one.—Mr. J. HUTCHINSON said that no doubt evisceration had not been done in a systematic manner with antiseptics, but he had not unfrequently performed evisceration intentionally, though usually more of the front of the eye was removed than was the case in Dr. Mules' patient.—Mr. CHARLES HIGGENS asked whether Dr. Mules had more evidence to show that this procedure prevented sympathetic ophthalmia.—Mr. ADAMS FROST said that a planned operation for the perfect removal of all the contents under antiseptic precautions had not been previously performed, and such an operation was very different from an accidental evisceration, where total clearing of the sclerotic was not aimed at. It remained yet to be seen whether wearing the glass sphere would give rise to any kind of irritation. Accidental breaking of the sphere was not very likely to happen; many glass eyes were broken, but not whilst they were in the orbit. He asked how long

a time the operation required for its full performance.—Mr. G. HARTRIDGE asked whether celluloid might not be tried as a material for constructing the sphere.—Mr. A. BENSON thought some irritation from the glass sphere might ensue at a late period.—Mr. JULER asked what kind of instrument was used to scrape out the globe.—Dr. MULES, in reply, said that he believed sympathetic ophthalmitis was always the result of an infective process by means of cells migrating from the diseased to the sound eye. The glass sphere had been worn for five weeks, and there was no irritation. He used about half a gallon of the solution of corrosive sublimate, and the operation lasted from fifteen to twenty minutes, including the time required to produce anæsthesia. He thought gilt aluminium would be the lightest material, but wished to try glass first, and he considered that it would not be broken; he did not think the glass sphere could get roughened on its surface. For clearing out the sclerotic dried lint rolled round a pair of forceps was used, but any device of the surgeon might be employed.

ACADEMY OF MEDICINE IN IRELAND.

AT a meeting of the Surgical Section, on January 23rd,

Mr. SWANZY read a paper on Transplantation of Skin Flaps without Pedicle for the Cure of Cicatricial Ectropia. He reviewed the steps of the proceedings as usually practised, and gave particulars of six operations he had recently performed, four of them being successful and two unsuccessful. The successful cases were exhibited. In addition to the points generally regarded as important, he drew attention to the following:—1. It is desirable that the wounded surface on the eyelid should be made as extensive as possible by the dissection of the everted lid being carried to the fullest extent. It is not sufficient, as usually recommended, to carry the dissection only so far as to bring the free margin of the eyelid being operated on in contact with the free margin of its fellow, but the dissection of the lid from the surface underneath to which it is attached should be gone on with until, on reflection, the free margin reaches up to or beyond the eyebrow, if it be the lower lid, or as far as or below the infra-orbital margin, if it be the upper lid. The object of this is to provide for the inevitable shrinking which takes place in the transplanted flap, so that the ultimate size of the eyelid may not be less, or much less, than normal. This second point had not before been mentioned. 2. With regard to securing the flap in its new position by sutures, it would be much better if sutures could be done without, as they cause suppuration at each point. The author had no experience of Wolfe's method of securing the flap without sutures. If sutures are used, they should be of fine silk or of fine platinum wire, and only so many as suffice to keep the flap in its place. Catgut sutures are not suitable, as they do not hold long enough to enable the flap to become adherent. A large number of sutures is unnecessary, and causes a line of suppuration around the margin of the flap, but platinum wire seems to cause little suppuration. 3. With regard to the dressing, carbolic acid should not be used in any form, being apt to irritate the delicate skin flap and increase the liability to peeling of the epidermis. He did not agree with Wolfe that the "so-called antisepticism" has no place in ophthalmic surgery. In this proceeding the dressings should be antiseptic, but they should be also non-irritating. Boracic acid and sero-sublimate were among the suitable applications. Finally, the author pointed out that where the epidermis has not peeled the shrinking is slight in comparison with where it comes away, and where the rete Malpighii has to throw out a new cuticle.—Dr. BENSON said that at the late Surgical Society he had himself read a paper on the same subject, giving the results of eight cases of transplantation from the arms to the eyelids without pedicle, and with a tolerably fair average of success, though not so large as Mr. Swanzy had. As to the failures, he asked if the lid was made better by the operation, even though the flap sloughed. He also inquired as to the time of the return of sensation in the transplanted skin. The use of carbolic acid as a dressing he condemned, the effect being to irritate the wound; he preferred vaseline.—Mr. WHERLER observed that in the formation of new noses, where the flap was taken from the forehead, sensation returned earlier than when taken from the cheeks or by Syme's operation.—Mr. STORY remarked that all the nerves had to do when the flap was taken from the forehead was to continue growing in order to restore sensibility; but when the skin was transplanted *en masse* from the arm without pedicle, the new nerves had to join on to the skin beneath, and therefore the early return of sensibility was not to be expected.—Mr. SWANZY, in reply, was mindful that Dr. Benson had anticipated him in the operation. His experience of it was extremely favourable. Of seven cases, two had been complete failures, while the rest were, surgically and therapeutically, complete successes. The two failures occurred in the same patient, and arose from the untimely melting away of the sutures. As a rule the epidermis came away, but he did not desire that result, the flap not being unlike the skin of the cheek when it remained, and the tissue underneath had not to go through the granulating process. He did not note the return of sensation, but it did not take place in less than a week or a fortnight.

Mr. STOKES read a paper on Astragaloid Osteotomy in the treatment of Flat-foot; and Mr. KENDAL FRANKS read a paper on the Treatment of Flat-foot by Ogston's Operation. The discussion on both papers was postponed to the next meeting.

MIDLAND MEDICAL SOCIETY.

AN ordinary meeting of this Society was held on the 4th inst., the President, Mr. T. H. Bartleet, in the chair.

Dr. THOMAS showed a patient on whom he had resected about an inch from the centre of the shafts of the left radius and ulna, to remedy severe Angular Ankylosis of the Wrist. The bones of the forearm had been fractured in 1881, and during the treatment a deep slough formed on the posterior aspect, leaving a cicatrix about two inches in length closely adherent to the bones. The wrist was firmly ankylosed in a position of acute flexion, and the use of the arm further impaired by an unreduced dislocation at the elbow. The cicatrix was dissected away, and about an inch of the bones removed. It was found that the wrist deformity was very little affected immediately, though considerable improvement ultimately followed. The ends of the two bones were placed together, the corresponding periosteum being united by fine catgut sutures. Considerable opening out of the angle of the wrist was secured, so that the arm was much more useful than before.

Mr. JORDAN LLOYD showed a Tumour which had grown in the breast of a girl, aged nineteen, within a period of eight months. The tumour was movable in all directions; at times painful and rapidly growing. The skin was full and traversed by large veins, the glands in the axilla enlarged. The whole breast was excised, the skin plentifully sacrificed, and the axilla thoroughly cleaned out. The patient has done well since. Microscopic sections were shown, the growth being an adeno-sarcoma.

Dr. SUCKLING exhibited Squibb's Apparatus for the Estimation of Urea, and recommended it as being cheap, portable, and accurate. He also showed a case of Cerebral Syphilis. The patient, a woman aged thirty, had had two miscarriages. Last December she was taken ill with severe pains in the head, vomiting, and vertigo, and was confined to bed for three weeks. She attended the Queen's Hospital as an out-patient in February, and had been treated with iodide of potassium in increasing doses. There were paresis of the right side, with increase of the deep reflexes, paralysis of the right third nerve, and peripheral paralysis of the left facial nerve, "the reaction of degeneration" being well marked. The speaker pointed out the multiplicity of the paralyses as being very characteristic of syphilis, and indicated the probable situation of the growths. There was no optic neuritis. The hemiplegia and paralysis of the third nerve were improving rapidly under the administration of thirty-five-grain doses of iodide of potassium thrice daily; but the facial paralysis remained unaffected. Dr. Suckling further showed a case of Peripheral Monoplegia in an infant of five months; the paralysis dated from birth, great difficulty being met with in delivering the shoulder. There were anæsthesia and contracture. The reaction of degeneration was present in a severe degree. He believed the accident to be a very common one, and urged the necessity of immediate treatment.

Dr. PURSLOW showed a specimen of Spontaneous Rupture of the Œsophagus into the Right Pleural Cavity, from an infant aged eleven months. There was no appearance of ulceration in the wall of the stomach or œsophagus, and no trace of a foreign body. The child was admitted with bronchitis twelve hours before death, and the fatal termi-

nation was sudden and unexpected, and preceded by convulsions.

Mr. EALES read a paper on Concomitant Internal Strabismus, and drew attention to its being almost invariably associated with hypermetropia. He then explained the mode in which the defect in focus brought about the squint; and having alluded to astigmatism and certain other conditions causing defective vision in one eye, pointed out how monocular defect contributes in a large degree to the occurrence of strabismus. He maintained that the essential cause was the hypermetropia, and that most cases if taken in time might be cured without operation by wearing suitable glasses. He thought operation should not be resorted to till glasses had failed to cure the squinting, and considered them necessary adjuncts in the after-treatment. He thought that the cure of squint by atropine drops without the aid of glasses was most improper, as the patient's vision was then bad for both distant and near objects. He had in a few cases cured squint by eserine drops, but found the result to be very rare. He thought this method of treatment only worth a trial in children too young to wear glasses.

WOLVERHAMPTON DISTRICT MEDICAL SOCIETY.

A MEETING of the above Society was held in the Bell Library, Wolverhampton, on March 5th, the President, Dr. Ballenden, in the chair.

Mr. VINCENT JACKSON showed two children lately operated upon for the Radical Cure of a severe form of Inguinal Hernia. The operation consisted in ligaturing and excising the sac, and closing the external ring with silver-wire sutures. No truss had been worn since the operation, and its curative character had been well tested, as each child had been a sufferer from whooping-cough since its performance.

Mr. VINCENT JACKSON also showed a Tongue removed on account of an Epithelial Cancer of the left side, the point of interest being the fact that, although the excision was performed slowly with the chain écraseur, yet, upon detachment, both lingual arteries required ligaturing.

Mr. CROCKETT then continued the discussion adjourned from the last meeting by reading a paper on Puerperal Fever, which, after alluding to the varied nomenclature and treatment, he divided into the three varieties of "inflammatory," "sapræmic," and "septicæmic," and subdivided all cases into autogenetic and heterogenetic. As to treatment, he strongly insisted on thorough antiseptic precautions, and thought the hyposulphites promised to be useful.—The debate was continued by the chairman, Drs. Totherick and S. Smith, and Messrs. Newnham, Jackson, and Magrane.

Dr. LYCETT then exhibited an instrument for facilitating the Radical Cure in Pyo-pneumothorax, and also an instrument for Dilating the Cervix Uteri.

CARDIFF MEDICAL SOCIETY.

The Measles Epidemic.

AT a meeting of the above Society, held at the Infirmary on the 11th ult., a discussion took place, in which the following members took part:—Mr. C. E. Hardyman (President), Dr. Campbell, Dr. M. G. Evans, Mr. A. Blain, M.B., Mr. W. H. Greener, M.B., and Mr. T. Garrett Horder (Hon. Sec.). The principal facts enunciated were:—1. That the deaths were in a large number of instances caused by pneumonia and broncho-pneumonia, and that these affections were rapidly fatal in the families of poor people. 2. That the epidemic was most fatal in the districts of Grangetown and South Splotlands. 3. That the cases in parts of the Cardiff district, especially in that part called Cathays, were of a mild nature. 4. That in three instances at least children were known to have passed through two distinct attacks within a month. 5. That many children suffered from gangrenous affections of the mouth and skin. It was pointed out that when the epidemic commenced the weather was very cold, the wind being easterly or north-easterly. It was also pointed out that in Grangetown (where the epidemic was most fatal) very bad smells had been noticed since the flooding of the district; and it was suggested as being probable that the main sewers had become disconnected by the force of the flood, and had caused the sewage to flow under the basements of the houses. The deaths recorded from this epidemic from Oct. 25th, 1884, to Jan. 24th, 1885, were as follows:—Grangetown, 55; Canton, 15; Cardiff, 35; Roath, 50—total, 155.

Reviews and Notices of Books.

Syphilis and Pseudo-Syphilis. By ALFRED COOPER, F.R.C.S. London: J. & A. Churchill, 1884.

THE literature of syphilis appears to keep pace even with the rapidly increasing number of affections which are attributed to the disease. Besides the large work by Bumstead and Taylor, and the recent enlarged edition of Berkeley Hill's treatise, we are now presented with the results of Mr. Cooper's large experience in private and hospital practice in this department. The work commences with an interesting inquiry into the history and the geographical distribution of syphilitic affections. The author then reviews at some length the relationship between the hard and the soft sore. He agrees with most of the authorities in this country that the poison of the hard chancre is a "specific virus, a pathological agent separate and distinct from every other animal poison." But he declines to attribute to the soft chancre any specific character whatever, believing that such an ulcer may "arise *de novo* from inoculation of the products of inflammation." We cannot, however, regard the evidence adduced by the author as conclusive of this theory. This evidence mainly consists in the fact that pustules of various sorts, such as acne, contain a discharge which, if inoculated, is capable of producing a similar lesion to that from which it was itself derived. While not denying this, which indeed is a matter of everyday observation, in the case of boils, &c., we cannot admit that this excludes the possibility of a soft chancre being due to some specific poison. It does not follow, because matter from an ordinary pustule can reproduce a similar pustule, that an ulcer has no specific characters because its discharge is capable of doing the same, and the uniform course and duration of the soft chancre which Mr. Cooper describes point to the sore being the result of some special poison. We are surprised that the author, who insists that a soft chancre is nothing more than a pustule resulting from irritating secretions, should give it the name of "pseudo-syphilis."

In subsequent sections the various forms of eruptions on cutaneous and mucous surfaces are described with much care and minuteness, and a considerable space is devoted to Diseases of the Eye, this chapter having been subjected to the criticism of Mr. Anderson Critchett. The nervous lesions due to syphilis are those especially on which our knowledge of late has increased, and here Mr. Cooper has secured the advantage of revision by Dr. Buzzard.

The chapter on Hereditary Syphilis describes in much detail the pathological alterations found in the bones and other tissues, but we would suggest that in future editions some separation between clinical appearances and anatomical appearances should be made. Mr. Cooper raises an able protest against the abolition of the compulsory clauses of the Contagious Diseases Acts, and quotes the authority of Mr. Parker Wilson, Surgeon to H.M. Military Prison, Brixton, that already as a result not only is the number of cases of syphilis increasing, but "the character of the disease, which had become modified, is beginning to assume its old virulent type." Under "Prognosis in Syphilis" Mr. Cooper asserts that rupial ulcerations in an early stage are likely to be followed by severe cerebral symptoms, but he is evidently of opinion that the actual prognosis in most cases depends on the care and discretion with which mercurial treatment is carried out.

Valuable information is given as to the treatment of the

various symptoms, and Mr. Cooper especially insists on the baneful effects of alcohol in syphilitic patients. The work is an instructive and comprehensive treatise on the effects of syphilis, comprising the latest information on the subject, and it will doubtless not disappoint the author in his expressed hope that it may be of service to practitioners and to students.

Practical Pathology; a Manual for Students and Practitioners. By G. SIMS WOODHEAD, M.D., F.R.C.P. Edin. Second Edition. Edinburgh: Young J. Pentland. 1885.

THE comparatively brief interval that has elapsed since the publication of the first edition of this book shows that its merits have been well appreciated, for it occupies almost a unique position, and constitutes a thoroughly trustworthy guide in pathological research, which might well be made the basis of class instruction. The student has now so many excellent treatises on pathology to select from that his choice must often be an embarrassing one; but if he were limited to one book he would do wisely to select that which furnishes him with instruction how to investigate morbid tissues for himself, for the knowledge thereby gained is that which is the most enduring. To our thinking the ideal plan of pathological teaching is that which enables the student to see, handle, and prepare the specimens for himself, added to an exposition of their characters, and preceded by a general disquisition on the broad principles of pathology. In this, as in other departments of medical education, the most value is derived from the practical work which supplements the theoretical matter derived from reading and systematic lectures. Dr. Woodhead has submitted his book to careful revision, and amongst the most important additions is a chapter on the Female Organs of Generation, contributed by Mr. Milne Chapman, M.B. We confess we should like to have seen this chapter dealing more in detail with uterine cancer than it does; and we should be disposed to question the statement that the commonest variety of such malignant disease is a true carcinoma, although there can be no question of its being a form of "diffuse-infiltration" growth. The highly interesting subject of ovarian new growths and cysts is also too cursorily dealt with. In other sections there still remain deficiencies, which will doubtless be supplied in future editions, notably in the chapter on the Nervous System; and as there still remain organs not yet included in the treatise, we may look forward to the gradual evolution of a work which shall be well nigh exhaustive of the subjects. The number of the illustrations, which, it may be remembered, are coloured so as to reproduce the appearances of the stained preparations from which they were drawn, has been increased, and we notice that some of those present in the earlier edition have been replaced by others more characteristic of the lesions represented. It is not difficult to predict for the book an enduring success.

SANITARY CONDITION OF CALCUTTA.

THE mixed committee which was appointed by the Lieutenant-Governor of Bengal in September last to inquire into the alleged defective nature of the arrangements for the cleansing and conservancy of Calcutta, and to report as to what further provision should be made for this important duty, have submitted their report to the local Government. It has not yet reached us, but judging from the copious extracts given in the *Calcutta Englishman*, the committee appear to have examined the subject carefully and impartially, and, while pointing out the defects, give the municipal sanitary commissioners full credit for the improvements they have already introduced. The committee made frequent examinations of the sewers, and heard all the evidence brought before them. The conclusions at which they arrived with regard to the main sewers were that, although there has been a marked change for the better in their condition since the increase of the conservancy establishment in 1883, there is still considerable room for improvement; but they think that before any expense is incurred in the way of erecting flushing tanks or reservoirs, it would be advisable to wait to see the effect which the extension of the waterworks will have on the sewers. At the same time they point out the importance of keeping a sufficient establishment to remove by hand the deposit which, even with increased flushing power, can scarcely fail to take place. As regards the second-class brick sewers, they say that they act fairly well, but in the dry season "they depend for their sweetness entirely upon the quantity and character of the sewage brought down by the pipe sewers; and it cannot be said that at present the flushing of the pipe sewers affects to any appreciable extent the removal of deposit from the brick sewers." The pipe sewers are stated to be in a very unsatisfactory condition, and the means of cleaning them inadequate, and the committee recommend the provision of greater facilities for flushing. They express an opinion that none of these pipe sewers should be left more than a month without being examined, and doubt whether the existing establishment is sufficient to carry out this duty efficiently. The difficult and important question of the ventilation of the sewers was carefully considered, and although no recommendation on the subject has been made, the committee acknowledge the objection to the system of gratings opening at the street level, and appear to favour the erection of pipes connected with the sewers and carried well above the roofs of the houses, which the commissioners are authorised by the Act to do. With regard to the estimate for the year 1885-86, which they were to submit, the committee report that they have found great difficulty in coming to a conclusion. They are of opinion that the work of filling up foul tanks should be proceeded with as quickly as possible, but that the order in which these should be taken must be left to the decision of the commissioners and the executive. While giving the commissioners credit for the very able manner in which they have managed their financial affairs, the committee express the opinion that the expenditure for the cleansing and conservancy of the town has not been on a scale commensurate with its requirements, and that the representations of the executive have not been treated with the consideration they deserve. They point out, in fact, that there has been "a tendency on the part of the commissioners to regulate their expenditure so as to keep down taxation without paying sufficient regard to the actual requirements of the town." And again they remark, "When we find the executive, year after year, asking for increased establishments and appliances to work with, and when we ourselves find that, with the existing machinery, the work is not satisfactorily performed, we cannot help thinking that the sanitary requirements of the town have been sacrificed to the desire to maintain the house rate at 7½ per cent." The committee bring under notice the necessity, in the interests of the town, for extending to the suburbs the sanitary measures which are necessary to bring them into a satisfactory health condition. "The town can never hope to enjoy a low death-rate so long as it is surrounded on three sides by an insanitary tract like the suburbs." The report concludes with a summary of the recommendations made by the committee as to improved drainage, increased water-supply, filling up of foul tanks and wells, the provision of additional bathing platforms, improvement of public latrines, increased establishment for road cleaning and conservancy, putting the registration of births and deaths more directly under the control of the health officer, and placing the suburbs under the same municipal administration as the town. The report of the committee, so far as we can judge from the extracts which have reached us, appears to show that in the agitation which was got up in Calcutta on the subject, sufficient credit was scarcely given to the municipal corporation for the sanitary improvements they had effected, but it also fully justifies the course adopted by Sir Rivers Thompson in instituting a searching inquiry into the complaints made of serious existing defects. We sincerely trust the labour the committee have bestowed upon it may not be thrown away, but that the municipal commissioners will co-operate cordially with the executive in carrying out, with as little delay as possible, the sanitary measures which have been recommended, and in extending them to the suburbs.

THE LANCET.

LONDON: SATURDAY, MARCH 28, 1885.

RARELY has the Royal Medical and Chirurgical Society been the scene of so large a gathering as that which took place last Tuesday, on the occasion of the first night's debate upon Cholera; and certainly those who attended the meeting were well rewarded, for at length the profession had the opportunity of hearing the statements of those who have been actively engaged in the study of the bacterial organisms associated with the disease, and of witnessing on a lavish scale microscopical preparations and cultivations in various media of the lengthening list of comma-shaped organisms which have been brought to light since KOCH first discovered a similar microbe in Asiatic cholera. These preparations were shown by Professor WARDEN of Calcutta, who has recently spent some months working under Dr. KOCH's direction at Berlin, by Drs. KLEIN and GIBBES, Mr. WATSON CHEYNE, Dr. HERON, and others, the whole furnishing a demonstration which was alone worth the visit. As for the debate itself, interesting as was the exposition of his views given by the President, of far greater interest were the speeches of Dr. KLEIN and Mr. WATSON CHEYNE, presenting as they did the two aspects of the question which has for so many months agitated the scientific world. It is much to be regretted that the limited time at the disposal of the Society did not allow of an extension of the debate upon this particular point, for although the subject is to be continued at an extra meeting, it was intimated that on that occasion discussion will be mainly directed to the general pathological and therapeutical questions, as raised by Dr. JOHNSON.

The President's opening paper was a clear and well-reasoned argument in favour of the doctrine that the choleraic virus has its seat in the intestine, and that the choleraic collapse is due to obstructed pulmonary circulation from arterial spasm excited by the action of the poison. This theoretical consideration was supported by a plenitude of reasoning from experimental physiology and pathology. Upon this view, which regards the alvine discharges as more or less critical, and the channel whereby the poison is eliminated, is based the notion that the best means of treatment is an early evacuation of the bowels before the poison is absorbed; whilst measures, such as opiates, to arrest the discharges are harmful. Dr. JOHNSON has long advocated these views, but it is well that they should again be laid before the profession, which requires, in spite of the experience of half a century, to be instructed upon the most rational treatment to be pursued. It is not unlikely that in the coming months opportunity will be offered for this, and in initiating a debate upon the subject the Royal Medical and Chirurgical Society is doing a work which will be much appreciated.

But, as we have indicated, the leading feature of the evening was the speech of Dr. KLEIN and the criticism passed upon it by Mr. WATSON CHEYNE; and it was to illustrate this portion of the subject that the remarkable demonstrations referred to were devoted. The conclusions arrived at by Dr. KLEIN and his colleague, Dr. HENRAGE GIBBES, have already been fully laid before our readers, but hitherto they have passed without challenge. Dr. KOCH has not himself replied to these statements, but his position was fully represented by Mr. CHEYNE, who studied the subject during the recent epidemic in Paris. Dr. KLEIN took great pains to show, in his opening remarks, that the choleraic virus could not be of the same nature as that of such infectious diseases as tubercle or anthrax; depending, that is, upon a micro-organism which penetrated the blood and was reproduced throughout the body. He pointed out the facts telling against the contagionist doctrine, which Dr. JOHNSON had just previously said could not be denied, and even went so far as to state that the virus was not contained in the excreta. The position which he holds is much the same as that of PETTENKOFER, who seeks in conditions external to the human body for the source of the virus. No doubt we shall hear a very great deal more upon this point, which has so long been contested, and upon which so many arguments may be adduced on either side. Were it not for the fact that many physicians concur with Dr. JOHNSON in the contagionist doctrine and the infective character of the excreta—in other words, were Dr. KLEIN's position accepted as beyond dispute, then there would be no justification at all for elaborate search for the contagium in the alimentary canal. If Dr. KLEIN held these views before undertaking his research in India, he must have been influenced by them, and could hardly have approached his investigation in an unprejudiced spirit. Apart from this, there remain questions of fact which are in dispute, and these ought to admit of settlement. First, there is the question as to the invariable presence of the curved bacilli in the choleraic discharges and intestinal contents. Dr. KLEIN admits so much, but is unable to corroborate KOCH's assertion that in the acuter cases and soon after death the lower ileum contains these bacilli in remarkable abundance. Dr. KLEIN found just the reverse, and asserts that the nearer to the time of death that the examination is made the sparser are the bacilli; but he adds that even more constant were small straight bacilli in the mucous flakes. Mr. WATSON CHEYNE's reply to this was that KOCH's statement did not rest upon the morphological criteria alone; it was based on the fact of cultures, which showed that in such cases the ileum contains hardly any other species of bacterium. And Mr. CHEYNE had not only confirmed this himself, but could also confirm Dr. KLEIN's statement as to the paucity of curved bacilli and the number of straight forms. The fact is, much misconception appears to have arisen from the adoption of the phrase "comma-shaped," for it appears that the curving is but an incident of one stage in the life of the bacillus, which, whatever its morphological changes, exhibits invariably the same reactions and characters on cultivation. Dr. KOCH and Mr. WATSON CHEYNE are positive upon this point. No other bacterium known to them, be it comma-shaped or not, can exhibit the same characters when cultivated. It is a distinct species. But Dr. KLEIN showed gelatine cultures of the mouth-bacillus (of MÜLLER and LEWIS) which were indistinguish-

able from those of the choleraic organism. Mr. CHEYNE stated that he and others had repeatedly tried to cultivate the mouth-bacillus in the same media as KOCH's organism, and failed; and he inferred that Dr. KLEIN's cultures must have been in different media. The acknowledgment that this was the case was most significant; for, small as the point may be, it suffices to show that there *is* a specific difference between the two comma-shaped organisms, just as they each differ from the bacillus of FINKLER and that of DENEKE. Another striking point of divergence arose upon the subject of transmission of cholera to the lower animals. Dr. KLEIN was justified in ridiculing the original experiments of NICATI and RIETSCH, for the preliminary ligature of the bile-duct they deemed necessary before injecting cultures of the comma bacillus into the duodenum. That procedure, which much complicated the issue, was unneeded, and was abandoned; and some successful inoculations have been practised by KOCH, WATSON CHEYNE, and others. Dr. KLEIN never succeeded, and attributed the results of others to septicæmia, forgetting, as Mr. CHEYNE and Dr. WARDEN reminded the meeting, that of all men KOCH is the most likely not only to recognise septicæmia when he meets with it, but to take suitable precautions against the possibility of such a mischance occurring. Space will not permit us to follow other matters, such as the absence of any gross anatomical lesions in the intestine according to Dr. KLEIN, and the swollen and injected condition of Peyer's glands invariably found by Dr. KOCH; nor the question as to the penetration of the mucosa by the bacilli, which Dr. KLEIN never saw, but which is shown in Dr. KOCH's preparations, and is attributed by Mr. CHEYNE to the latter's skill in staining them. Nor need we do more than refer to the instance of the now famous tank visited by both Dr. KOCH and Dr. KLEIN, but under very different conditions as regards the prevalence of cholera in the vicinity, and the naturally divergent inferences drawn by each in consequence.

It is at any rate satisfactory that the results of Dr. KLEIN's Commission, which were so opposite to those of Dr. KOCH's, should at length have been submitted to the criticism of those who have come to the same conclusions as the latter; and it surely is not difficult to harmonise the two to this extent—viz., that the choleraic intestine does contain invariably a microbe of special and peculiar properties, which appears to go through many changes in form in its development—straight, curved, spiral, &c.; but which is perfectly distinct from any other known species of microbe. To Dr. KOCH remains the credit of demonstrating this fact; and Dr. KLEIN's investigations, when read by the light of reason, may be held to confirm it also. But, singular as this fact is, are we justified in assuming that this microbe is specific and pathogenic? Here Dr. KLEIN's criticisms upon the nature of the choleraic virus deserve more attention than they have received; and we imagine that at present the verdict must be one of "not proven." For it is remarkable how meagre is the evidence which connects this choleraic organism with the origin of the disease itself. It may yet be that by a closer imitation of the conditions under which cholera is transmitted (for, *pace* Dr. KLEIN, we cannot doubt that it is directly communicable) this crucial point will be satisfactorily determined. If it were established beyond dispute, the task would still remain to harmonise the other abundant and discordant facts concerning the disease which have accumulated in the history of epidemics with the new doctrine, which Dr. KOCH himself does not hesitate to adopt.

THE Hospitals Association was well occupied on the 18th instant in hearing a paper by Dr. BRISTOWE on the out-patient question, including the subject of provident dispensaries. This subject has been very much discussed. A large amount of sense and a still larger amount of nonsense have been talked about it. Lately, in accordance with the spirit of criticism which is abroad, everything in the old-fashioned administration of our medical charities has been questioned, a disposition has been shown to add to the torture of sickness that of a severe inquiry into social circumstances, and to convert hospitals and dispensaries, in which needy and sickly people have been in the habit of finding medical help on charitable terms, into petty shops in which, on low commercial terms, whosoever pleased may find all the resources of surgery, physic, and pharmacy. This tendency will be most beneficially checked by the address of Dr. BRISTOWE, which should be carefully read by every person interested in the dignity of medicine and in the welfare of the sick poor. It shows the really complicated nature of the questions involved in any attempt seriously to curtail the proportions of the out-patient departments of hospitals, or to commercialise the terms on which patients are relieved in our medical charities. It takes a true physician to make such a statement as that of Dr. BRISTOWE. The definition of poverty, or rather the demonstration of the impossibility of defining it; the inadequacy of a mere wage or income test of it; the delicate appreciation of what we may call refined poverty, the poverty of those who have known better days, or whose means are hopelessly disproportionate to their necessities or their necessary appearance in society; the striking account of the amount of grave disease treated in hospitals—are all features in the address which should make the advocates of wholesale change in our public medical institutions pause. It has been too much the fashion of those who dislike the out-patient department of hospital work to represent the diseases treated as trivial and fanciful. Fanciful disease does not much frequent hospitals. Dr. BRISTOWE is nearer the mark in showing how people "suffering from chronic, incurable, or obscure disease gravitate towards a hospital"; "those with heart disease, chronic renal disease, bronchitis and chronic forms of phthisis, chronic diseases of the liver, abdominal tumours and uterine disorders, dyspeptics, the epileptic and the hysterical," &c. We cannot even afford room for the list; but it represents a great mass of suffering, which is borne with wonderful patience and absence of complaint, and which in the rich would be met with the wisdom of a dozen consultants and with the virtue of as many different climates. These are not the days for weakening the human and sympathetic bonds which have long existed between the different classes of society—classes to which, on the one hand, it has been so pleasant to give help, and on the other so convenient to receive it.

We are glad to see that Dr. BRISTOWE demolished that "million" that is so loosely said to "sponge" on the medical

charities of London, not from any actual disease, but just for the pleasure of taking cheap physic. With no wish to see unfit cases treated at hospitals or dispensaries, and without denying that there are not a few such, we have often protested against this coarse statistic as a thing that would not bear examination. Dr. BRISTOWE shows how one and the same chronic sufferer figures as a new patient each time he changes his letter; how he goes through the same process in other institutions; and how, even in the same hospital, he may be under treatment in two different departments. By such means he carries the reduction of the million to one or two hundred thousand. This is a bolder reduction than even we have ventured to make; but there is much truth in it, which we venture to recommend to Mr. FREWEN of the Hospital Saturday Fund, who since Dr. BRISTOWE's address has enlarged the million to one million and a quarter in an address on Metropolitan Hospital Reform, and whose sole idea of hospital reform seems to be that all hospitals should reduce their expenditure per bed to 25*s.* per week.

Dr. BRISTOWE expressed great objections to payments by patients in hospitals, especially in their tendency to lead the poor to think that they were actually buying medical advice and medicines, and thus to put hospitals into a kind of competition with private practitioners. Dr. BRISTOWE spoke in similar tones of the tendency of Provident Dispensaries, or at least of those that aim at supplying medical treatment and medicines "at unremunerative prices." This has been the tendency of the metropolitan provident dispensaries, and *a fortiori* of those Provincial Medical Associations which aim at breaking up the family doctor relation of the practitioner to the working classes, and exacting an enormous amount of work for a mere pittance. Better far retain our medical charities for generous and not too critical use in the emergencies of life, or by the afflicted members of humbler families, and leave these very families to pay what they can to their ordinary trusted adviser—generally a larger sum, we venture to say, than is paid under the much-vaunted provident dispensary system, which has done much to lower the estimate of medical service. We cannot prolong our notice of this admirable paper of Dr. BRISTOWE, even to dwell on that part of it which shows the enormous educational advantages of the existing hospital system. But we hope we have said enough to encourage our readers to give it careful perusal. It is gratifying to be able to add that many members present expressed concurrence with Dr. BRISTOWE's views.

EARL GRANVILLE's circular letter to the British ambassadors abroad, calling for reports on the laws relating to lunatics in force in other countries, must be accepted as evidence of a desire on the part of the Government to amend the laws of our own land in the light thrown on the subject of insanity in its socio-legal aspects by the lessons to be learned from the practice of contemporary nationalities. If this be the temper of the Legislature as well as of the executive, there is one lesson—and we hold it to be most important—which stands out so conspicuously that it cannot be disregarded. We allude to the precautions taken by nearly every State except our own to ensure the identification of each person alleged to be insane, and to prevent the individuality of the case from being lost. If only this advantage could be secured for the victims of "certifying" in this country, a great step would be taken on the road to reform, and a very considerable, if not practically all-sufficient, safeguard for the sane would be gained. The initial fault and the crying evil of the lunacy system in operation in this country lie in the fact that whereas certificates of lunacy actually deprive the person named in them of his civil rights, they do not so specialise his case that it can be—or we would prefer to say must be—kept under official observation, *in the interests of the person alleged to be insane*, with a view to the instant detection of any error which may have been made in the necessarily hasty judgment formed by his medical examiners, or the restitution, immediately on recovery, of the rights and privileges of which he has been deprived. It is simply intolerable that because a man happens to have some disturbance of the functions of the cerebrum, perhaps of quite a temporary nature, he should be deprived of that self-control and self-respect which are the most cherished attributes of the human consciousness, and placed in the position of a cowed creature held in bondage by those around, a slave in every mental sense, to the sore wounding and chafing of soul and conscience, and to the lasting detriment of the whole moral nature. It is a grievous pity that any consideration should be thought to make such a degradation of the man sick in mind needful; but, if it must be so, clearly it is incumbent upon us to see that when and where this humiliation is imposed its subject or victim may not for a single instant be permitted to pass out of the field of vision. When and while NEBUCHADNEZZAR is compelled to eat straw like an ox, at least let some thoroughly impartial person be set over him to see that he is really mad, and to lead him back to the ways of humanity the instant his reason is restored.

The precautions taken in foreign countries to make sure that the alleged victims of insanity are really insane are better than those nominal measures held to suffice at home. In Austria "official sanitary authorities must study the history of the malady of each patient." This is part of the bounden duty of the inspectors of asylums. Imagine for one moment the consternation likely to be produced at our Board of Commissioners if such a rule were to be enforced here! In France "in the case of private asylums, the Prefect shall send within three days [of the admission of a patient] one or more experienced men to report upon the case." In Germany "a patient cannot be confined at the request of a private person, not even if such person be a parent, husband, or wife (as the case may be) in any asylum, public or private, but only at the request of the court or of the local police authorities." We in England care nothing who makes the request; it may be any man hired out of the street for a couple of shillings, or the most dire personal enemy of the person to be confined, perhaps one who can work vengeance or make profit by getting the subject of the "order," or request, out of the way and deprived of his civil status and powers, though it be only for a brief period. And in Germany, if wrong be done in this way, there is no such thing as mere sueing for damages; but the doer of the wrong is punishable with hard labour up to ten years, if the "deprivation of freedom last over one week." In Italy the medical certificate requires the

affidavits of "two witnesses," or "a decree of the judicial authorities," to make it valid. In the Netherlands "authorisation for the admission of a patient into a lunatic asylum must be applied for in writing to the judge of the court of the district in which the patient resides by one of his relatives or his guardians, or, in their default, by the officer or justice of the said court.....It is only on the exhibition of the authorisation in question that any person can be admitted—and this only provisionally—as a patient in an asylum." In Portugal "a lunatic is admitted to the asylum in virtue of a judicial decree on the demand of the administrative authorities," and "the examination of the lunatic by the certifying physician must take place in the presence of a judge and witnesses." In Russia, unless there has been an official examination before the admission of a patient to an asylum, "the Governor [of the province] shall immediately ascertain—in a private manner and without publicity—whether, in placing the person therein, there has been any abuse of power," &c., and "at the examination of insane persons, whether at the seat of the county or local administration, the Governor shall preside over the proceedings in person."

All this shows how careful the Governments of other States are to protect the insane and to prevent malpractices. If we compare our method with that of almost every other civilised people we must see how deplorably we fall short in the discharge of a great public duty. In Sweden and Norway the medical examiner is not left without express guidance as to the mode of his examination, and so full and precise are the details to be furnished by him, that it is scarcely possible that in the absence of intentional fraud an error can be committed. In the United States of America there is a strange want of uniformity in the law and practice; but in some States—for example, Massachusetts—"no person can be committed to a lunatic asylum except by a judge's order." While side by side with this excellent provision "the superintendent [of an asylum] is allowed to receive and treat any person as a boarder and patient who is willing to undergo treatment, but whose case is not sufficiently serious for a physician's certificate," thus supplying a much-needed facility for the prompt aid of the large class of patients not yet actually insane, but in danger of becoming so—a class for which, in England at least, we make no provision, and practically refuse to help in the self-conscious stage of their malady.

Whatever else may come of the lunacy reform undertaken by Her Majesty's Ministers, we trust that the first great lesson to be learnt by the reference of the Foreign Secretary to the laws and practice of other nations will not be unheeded.

THE subject of the Croonian Lectures, just delivered at the Royal College of Physicians, is one of the highest practical importance, and it could have received few exponents better qualified to deal with it than Dr. HERMANN WEBER. The time has happily gone by when pulmonary phthisis was regarded as a hopelessly incurable disease, but such teaching as Dr. WEBER's is needed to enforce not merely the truth of its curability, but of the possibility of its prevention. In this country especially, where consumption claims so many victims, it is imperatively necessary to listen to such doctrine, and to spare no effort to follow the lines indicated for the prevention of this scourge. The task is beset with difficulties, but they are not insuperable, for were the sums now freely expended in the waging of wars, the ultimate advantage of which by no means counterbalances the sacrifices endured, devoted to measures for combating the enemy within our gates, a vast addition would be made to the sum of human happiness and many human lives saved. We have no intention of following Dr. WEBER through the subjects so admirably and genially dealt with by him. The lectures deserve to be read and studied, as they will be, and will neither bear compression nor need analysis. The point, however, which the lecturer appeared most desirous to urge upon his professional hearers was the pressing need there is for improving the facilities for the care of the consumptive poor; for modern science has clearly shown that the only treatment, whether prophylactic or curative, that is of avail is not the medicinal, but the hygienic and climatic—a watchful supervision of the invalid and his surroundings during the whole of his life. This implies not only a liberal expenditure of money, but the intelligent co-operation of the patient himself, and hence it is that the well-to-do and the educated are in a far better position for reaping the advantage of such treatment than the poor.

The conditions under which the poor live are precisely those which favour the progress and spread of consumption. To cope successfully with the disease, everything depends upon a sufficient and good supply of food, good clothing, well-regulated exercise varied by adequate rest, an ample supply of pure air; and who can say that a single one of these conditions is at the disposal of the vast majority of the phthisical? Nor when admitted into a hospital, not specially devised for the treatment of phthisis, is any advantage gained; for there is not a hospital physician who can deny the assertion of Dr. WEBER as to the unsuitability of the ordinary hospital life for the subject of phthisis. What then is required, and how is it possible to meet the demand? The magnitude of the undertaking involved in the answer to this question is such that a feeling of despair at its fulfilment is engendered. For it means the multiplication by hundreds of sanatoria such as the few now existing, and the placing them under qualified medical control. Dr. WEBER clearly showed that the requisites for such institutions are numerous if they are to be really efficient; but the guiding principle of them should be to afford an ample supply of pure air, sunshine, and protection from wet and wind. Dr. HASSALL's admirable hospital at Ventnor may be taken as the type of what is needed in many parts of the country, if the amount of relief afforded is to be anything like commensurate with the extent of the disease.

If the striking and forcible manner in which attention has been drawn to this matter by Dr. WEBER shall issue, as we trust it may, in a great impetus being given to provision for the phthisical, and the bestowal of the advantages of pure air on those who are unable to seek it for themselves in mountain valleys, much will be gained. But how much will yet remain undone. The conditions of civilised urban life forbid the hope that phthisis can ever be banished from our midst. It is a melancholy reflection that, do what we

may, our efforts will only ameliorate, they cannot expel, this ever-present disease. Moreover, the number of the sick is so vast that, with the most extensive system of sanatoria it would be impossible to treat more than a minority.

Turning from this view of the subject, which concerns the philanthropist, to the arguments whereby Dr. WEBER proved the benefit ensuing upon the open-air treatment of phthisis, it will be admitted that his plea for a mountain climate was very forcible, whilst his refutation of adverse statements as to the efficacy of such climate was complete. But here, as in all departments of practice, the good derived from the treatment will depend upon the suitability of the case submitted to it; and we fear that there is not always sufficient discrimination shown in the choice of a health resort. To use the cant phrase that every case must be judged "on its own merits" is to imply that the physician should have a thorough knowledge of his patient's constitution, of the type of his pulmonary disease, and of the climatic conditions most suitable for him individually. Certain broad rules have been formulated as to the contra-indications for the tonic and stimulating influence of the sunshine and pure still air of high altitudes; but we still need the knowledge, which experience may ultimately bring, of the precise indications which will determine a preference for the converse climatic conditions. It is not that Madeira is better than Davos for all cases indiscriminately; but it is that for some forms of the disease Madeira is preferable and for others Davos. *Cæteris paribus*, that climate is the most suitable which will permit the invalid to enjoy as much of the day as possible in the open air; and dryness, sunshine, with freedom from wind, are the conditions which best allow of this. Dr. WEBER raised a note of warning against the danger of a health-resort like Davos being deteriorated by becoming too popular. The best way to prevent such a result is to seek for other regions equally favourable which can be utilised for the same purpose. Moreover, those who are responsible for the sanitation of these places should use every effort to render them free from endemic disease.

Annotations.

"Ne quid nimis."

THE UNIVERSITY OF LONDON AND THE PROPOSED TEACHING UNIVERSITY.

THE present relation of these bodies is briefly as follows. On Feb. 24th the special committee appointed by the Convocation of the University of London on Jan. 6th was reappointed, with full powers to promote the carrying into effect by the University of the objects of the Association for promoting a Teaching University. A meeting of the committee was held at Burlington-gardens on the 25th inst., and the following resolution was passed *nem. con.*: "That a subcommittee, consisting of the chairman and four members, be appointed to confer with the Association for promoting a Teaching University for London, or any committee of that body, and thereafter to prepare a draft scheme, or the heads or outline of a scheme, for the carrying into effect by the University of the objects of the said Association." The subcommittee will be composed of Lord Justice Fry, and Messrs. Savory, Anstie, Thiselton Dyer, and McDowall, as representatives of Medicine, Laws, Science and Arts respectively. The members of the Committee of Convocation have evidently now determined to take the first practical step towards the reform of the University, and, although there may exist doubts as to the possibility of their success in proposing a workable scheme that will be generally acceptable, they have our best wishes in their endeavours, for we feel assured that they are working in the right direction, and in the best possible manner to attain their ends.

THE NEW POISONS BILL.

THE new Poisons Bill which was introduced into the House of Lords by the President of the Council, and read for the second time last week, presents nothing of any positive interest to the medical profession. The omission to deal with the question of the Patent Medicines Stamp Tax is a subject for regret. Lord Carlingford, in his speech, showed that he was fully alive to the necessity for legislation on the subject, for he practically admitted that there was nothing to be said in favour of the retention of the stamp, except that it brought in an annual income of a few thousands. The Bill seems to have been very carelessly drafted, and the omission to include phosphorus and its preparations in the schedule of poisons is likely to provoke much adverse criticism. That the sale of colchicum should be in no way restricted is somewhat surprising, especially when it is remembered how frequently this drug is used for criminal purposes. Only as recently as last week we drew attention to the subject. We notice that in the first part of the schedule "all poisonous vegetable alkaloids" are included except morphia, which for some reason is retained in the second part. The insertion of the restrictive adjective "vegetable" in this phase is certainly a mistake, for there are many alkaloids and alkaloidal bodies of animal origin, some at least of which will probably come into use as therapeutic agents. Digitalin is expressly mentioned by name, obviously because, being a glucoside and not an alkaloid, it would not be included in the previous clause. The omission to insert the words "and all poisonous glucosides" is certainly strange, and indicates a marvellous ignorance of the technical points under consideration. We are pleased to find that special mention is made of lobelia and its preparations, and we trust that this will suffice to put a stop to the traffic which has long been carried on by herbalists and others. The nomenclature and orthography adopted by the framers of the Bill seem to us to be somewhat peculiar. Why the term "morphine" should be preferred to that of "morphia" and "emetic tartar" to "tartar emetic" we do not know. The Earl of Milltown has given notice that on the motion to go into committee he will move that it be referred to a select committee for consideration. This is certainly very necessary, and we trust the opportunity will be taken to move an amendment dealing with the repeal of the Patent Medicines Stamp Tax.

AREA CELSI.

THAT alopecia areata depends upon the growth of a fungus is a doctrine that has been often advanced only to be refuted, and has now few, if any, supporters. Nor can there be any doubt that mistakes have been made in the various attempts to settle what might seem to be a simple question, and certainly amongst those who have upheld the parasitic nature of the affection there has been little agreement as to the precise nature of the fungus concerned. It has been reserved for these days of microphytic pathology to revive the doctrine in a more refined form. Alopecia areata is due to the growth of a micrococcus, at least, so says Dr. von Schlen of Munich in a paper contributed to the current number of Virchow's *Archiv*. He

describes five cases, in all of which the stunted and diseased hairs were mostly the seat of colonies of micrococci, averaging 0·5 μ in diameter, some smaller ones being of the diplococcus form, and larger ones with median constriction. From their situation in the shaft, it would seem that they occurred in connexion with the ducts of the sebaceous glands, and it is inferred that they invade the hairs by these ducts. The micro-organisms were not found in any but the diseased hairs, and not universally in them. By cultures in agar-agar peptone it was ascertained that the organisms were distinctive in their mode of growth, and experiments were made with a view to ascertain whether they were really capable of transmitting the disease; on the human subject the attempt failed, but on white rats there appeared, on the spots where the material of some of the cultures had been rubbed in, scaly patches, over which the hairs at first became yellow-coloured, and then fell out. The writer reconciles the notion that these micro-organisms have a causal relation to the affection, with the other well-proved facts of its association with trophic disturbances—(e.g., vaso-motor derangements), by assuming that the occurrence of such disturbance prepares the soil for the growth of the micrococcus. Holding such views, he advocates, and has had good results from, epilation and the use of corrosive sublimate; and also urges the importance of cleanliness in the use of brushes, &c., as a prophylactic measure.

ARMY COMMISSARIAT AND TRANSPORT SERVICES.

THE subject of the defective organisation of the Commissariat and Transport services of the Army was incidentally brought under the notice of the House of Commons last week in the form of a motion by Colonel Stanley to reappoint the select committee nominated last year on the motion of Dr. Cameron. The committee had, before the close of the session, collected a great mass of information bearing on the subject, but had been unable to complete the inquiry and report their opinions. They had, however, laid on the table a voluminous Blue-book containing the evidence taken, and had unanimously recommended that they should be reappointed with a view to the completion of the report; and Colonel Stanley, in his official capacity of chairman of the committee, brought forward a motion to that effect. This was opposed by Lord Hartington on the ground that the heads of the Departments of Supply and Transport were at present so overtaxed by the work in connexion with the Nile and Suakim expeditions and the operations in Bechuanaland that it was quite impossible they could spare the time or give the attention necessary for the efficient working of such an inquiry, and that some of the officers whom it was considered of great importance to examine were now absent on service. To this he added, "that the evidence of the principal officers already examined before the committee showed that there had been no breakdown of any sort in the organisation, and that such difficulties as occurred arose from military exigencies of an exceptional character." From this opinion Dr. Cameron, who was one of the members of the committee, dissented, believing that there had been a very great breakdown, and he commented on the unprecedented course followed by the Government in opposing the reappointment of a committee which had unanimously recommended its reappointment. "He believed that a desire to burke further inquiry had a good deal to do with the refusal of the Government." Those who have read Dr. Cameron's "Romance of War; or, How the Cash goes in Campaigning" will, we believe, agree with him in thinking that the present organisation is very far from providing efficient service, and that to the system, and not to the officers who have to carry it out, must attach the blame of the shameful mismanagement and blundering which occurred in Egypt. Dr. Cameron was supported in his views by Colonel Milne Home and Sir H. Fletcher. Mr Carington and Dr. Farquharson, while of opinion that the subject required full investigation, suggested that the appointment of the committee should be delayed till after Easter, "when the pressure of work connected with the troops in the Soudan going into summer quarters would be over." The motion for its reappointment was negatived by a majority of nineteen, but Dr. Cameron gave notice of his intention to move a resolution on the subject on going into supply on the army estimates. Dr. Cameron deserves great credit for the pertinacity with which he has kept the subject under notice, and for the clear and able manner in which he has shown up the results of the defective organisation. We have every confidence that he will find an opportunity to have the subject fully discussed, and that he will force upon the authorities the necessity for important alterations in the working of both the supply and the transport departments.

OVERWORK IN TELEGRAPH OFFICES.

OF the various public services the railway and the telegraph departments are two in which employés have probably to do harder and more continuous work than in any other. While each of them is contrived to meet the demands of sudden emergency, and to make use of all available time by day or night, it cannot be said that the working staff of either receives that consideration which is fairly due to it. The effects of this neglect have at times been painfully apparent in accidents and narrow escapes recorded on the line, and these we may hope have taught some lessons in organisation which were much needed, and are even now still better known in theory than observed in practice. The case of telegraph clerks is different. The risks arising out of overpressure do not usually concern the employers so much as the employed. They are such as tell severely on the health of individuals, many of them mere boys and girls, through the nervous and muscular strain of concentrated effort during a daily period of twelve hours. We do not forget that youth is, with many, a time of great constitutional elasticity. At that age a shock or a crisis may come and go and leave no lasting mark, and likewise high degrees of labour tension may be undergone and rallied from. At the same time one is forced to admit that much of the working material which passes into the telegraphic and every other service by competitive examination is by origin and habit physically unfit to sustain such effort. A shorter working time or greater division of duties appears therefore to be indicated, if we are to shield from needless hurt those whom we select on the present system.

"SIGNS OF DEATH."

OUR contemporary the *Echo* published a note on the 21st inst. headed "Life in the Coffin," and mentioned one of the supposed signs of death—flaccidity of the eyeball—as a test which, if trustworthy, should be universally known, but left the reader in ignorance of the degree of trustworthiness. It is well known that the state of tension of the eye varies according to the mode of death, being greatest in cases of asphyxia, especially where this has been produced by compression of the cervical veins, as in hanging. After death in all instances the eye sooner or later loses its natural lustre and prominence, but when this has so far developed as to be conclusive other signs of death are present. Without going through all the criteria—and their name is legion—that have been proposed to aid in the solution of the question, we may state that the advent of cadaveric rigidity and the supervention of decomposition are of infinitely greater value than the strongest evidence obtainable from an examination of the eye. They are, in fact, singly and collectively, the grounds which no reasonable person would contest.

RETARDATION OF THE PULSE IN MITRAL INSUFFICIENCY.

THE outcome of a scientific interpretation of the signs yielded by mere auscultation of the heart alone appears to be that such signs are inadequate of themselves to establish the nature of the lesion on which the murmur depends. In making this statement, we would have it understood that we wish to regard the matter solely on its scientific basis. Dr. Keyt of Cincinnati has done much in the cause of scientific diagnosis of cardiac disease by his papers on the Retardation of the Pulse in Valvular Disease of the Aortic and Mitral Orifices. He has found that abnormal retardation of the arterial pulse, and notably that of the carotid artery, is a real phenomenon of mitral insufficiency. It is present in all cases of pure organic mitral insufficiency, and is absent only in insignificant regurgitation or in regurgitation complicated by aortic insufficiency. The degree of retardation of the pulse is a measure of the amount of the regurgitation. The retardation may be present in two other organic conditions, and possibly in a third. In conjunction with an apex systolic murmur its presence is conclusive of mitral insufficiency. Compared with the apex systolic murmur, this sign is more positive, and distinguishes between harmful regurgitation and harmless conditions, which the latter does not. By the aid of the retardation of the pulse alone, a positive diagnosis may be made at once in any stage of the case under investigation, without waiting for the development of the usual sequelæ. Such are the conclusions at which Dr. Keyt has arrived. His evidence has been fully set forth in the *Journal of the American Medical Association* of Dec. 20th, 1884. The chief kinds of evidence adduced are the simultaneous tracings taken from the heart and the carotid artery of cases of pure mitral regurgitation, afterwards verified as such by post-mortem examination. For example, the normal interval between the time of the occurrence of the cardiac impulse and the pulse in the carotid, when the heart is beating 100 per minute, would be about one-seventeenth of a second. In the case of a boy aged nine having the signs of pure mitral regurgitation with a pulse rate of 100 per minute, the interval was found to be two-seventeenths of a second. The autopsy proved that the mitral regurgitant lesion was alone present. Dr. Keyt believes that he has also proved the point on an artificial schema of the circulation. The investigation is one which would well repay further attention.

THE ANTI-VACCINATION DEMONSTRATION IN LEICESTER.

AFTER the excitement of a crowd is over the sensible working men of Leicester will begin to ask themselves whether they have been making a very creditable appearance before the civilised world. Most of their own fellow-countrymen think they have been doing the reverse, and on the Continent and in the United States the opinion will not be very different. It is not necessary to maintain that vaccination is an absolute protective against small-pox, though few things are more clear than that it is so, if rightly used and at least once repeated. Nor is it necessary to deny that in very exceptional cases it has been followed by inconvenient effects, though these are so rare that many practitioners of standing have never seen them. To abandon a great good for the fear of incurring an infinitesimal evil is foolish indeed, and is to play into the hands of the medical profession, who have much more to gain from epidemics of small-pox, from which they absolutely protect themselves and their families, than they have from the slight and cheap operation of vaccination, performed for the most part by a few public vaccinators. It is only necessary to show that the fanatics of Leicester are placing themselves in opposition to the common sense of mankind, and of two evils prefer the infinitely greater one. It is well pointed out in *The Times* that in Leicester alone over 300 deaths from small-pox have been known to occur in one year. It cannot be doubted that, notwithstanding the comparative immunity of late years, the materials of future trouble are accumulating in spite of arrangements which are just as much violations of personal liberty as compulsory vaccination is. If Leicester could keep all its small-pox to itself, there would be some show of reason in its demand for exceptional legislation; but it cannot do so; and it is a poor prospect for the future if civil and religious liberty is to include the liberty to have small-pox and to spread it in all directions throughout the country, leaving its victims and their dependants to the mercy of the State. We commend these reflections to Professor Stewart and other members of Parliament who have found themselves able to make political capital out of the disparagement of laws which have saved life on a prodigious scale.

THE BICYCLE ACCIDENT AT CAMBRIDGE.

ON March 18th Mr. H. Gotobed, the borough coroner, held an inquest in the Master's Court, Trinity College, Cambridge, touching the death of Sir J. G. Aylmer, an undergraduate. From the evidence it appears that the deceased baronet had a severe fall from his bicycle, which stunned him for a time, and that he seemed to have recovered from the effects of the injury—so much so, in fact, that Mr. T. Hyde Hills, who attended him professionally, did not anticipate the fatal result. On the following evening he fell into a comatose state, from which he never rallied. It was known that deceased had been the subject of diabetes for some years. The symptoms of the fatal illness were those of diabetic coma, from so-called "Kussmaul's acetonæmia"; and the doctor certified the cause of death accordingly. Meanwhile the accident and its supposed result had been reported in the papers; and the coroner, on the information laid before him, decided—very properly, as we think—to hold an inquest. During the inquiry it transpired that the investigation before the court would not have been deemed necessary if Mr. Hills had stated in his certificate that the death was in no way attributable to the accident, or if he had given that assurance in writing at the request of the coroner. The misunderstanding led to a passage of arms between the coroner and Mr. Hills, which was described in the local papers as "a scene." The facts of the case were very obvious; and it only required a little tact to avoid the conflict of opinion that took place in open court. It is beyond doubt that the deceased had suffered from diabetes. It seems probable that his death was due to diabetic coma. Notwithstanding, we maintain that, in the interest of the public and the profession, it was not only desirable that an inquest should be held, but that a post-mortem examination should be made. Claude Bernard showed that puncture of the floor of the fourth ventricle of the brain in a rabbit caused temporary diabetes, and cases are on record in which a like result has followed injury to the head in the human subject. We know of one instance where the glycosuria was permanent. It seems not unreasonable, then, that the injury may have had some influence in producing the acute symptoms, or rather in determining the onset of the acetonæmic state. A valuable opportunity for pathological observation has unfortunately been lost. There is another reason why a post-mortem examination should have been made and the question of the bearing of the fall from the bicycle on the cause of death stated with precision. The deceased might have insured his life, and clearly a very important issue would then have to be determined—viz., whether the death was in way owing to the injury. The

jury found that "the fatal symptoms of the disease developed rapidly in consequence of deceased having been thrown from his bicycle"; upon which the coroner remarked "in the contemplation of the law, on that verdict the cause of death was the accident." It seems to us that the finding of the jury, although not improbably correct, was scarcely warranted by the medical evidence, for Mr. Hills discreetly declined to commit himself to the expression of a definite opinion as to the relation of the coma to the accident.

FURTHER EXPERIMENTS WITH CHOLERA VACCINIA.

THE experiments we noticed in a recent issue have been continued by Dr. Ferrán of Barcelona. Drs. Serañana and Jacques, in whom cholera vaccinia had been induced, were, nine days afterwards, again given injections of attenuated fluid, but this time entirely without effect. Several other experimenters submitted to similar treatment with the same fluid, with the result that they all suffered from headache, nausea, pyrexia, and general malaise, some of them being so severely affected as to be obliged to give up practice and keep their rooms. One of those whose symptoms were most severe was Dr. Llorens Gallart, who gives the following report:—"Having been inoculated by Dr. Ferrán, by means of a Pravaz syringe, with half a cubic centimetre of attenuated cholera fluid injected into each arm, three hours afterwards I began to feel severe pain in both arms, which increased until numbness supervened. There was also increasing general lassitude, a feeling of intense cold, which caused shivering for three hours; the pulse was 96, and there were nausea and intense frontal headache. All these symptoms reached their maximum twelve hours after the inoculation, causing dizziness. I was then obliged to lie down and cover myself up. The reaction, for which I had not long to wait, was intense. The pulse was 125 and full, the temperature 39° C. (102·2° F.), and there were great thirst, restlessness, and a condition bordering upon delirium. These symptoms lasted from the twelfth to the seventeenth hour after inoculation. After this had left me I still suffered from pain in the arms and from prostration, which, however, gradually passed off, ceasing completely in five days." Dr. Ferrán has also experimented on rabbits. Having protected some by a prophylactic dose—that is, having given them cholera vaccinia—he has proved that such are quite unaffected by double the dose which was found to be fatal to unprotected individuals. Further experiments are proposed to be made with cholera fluid, and also with that of other diseases.

NULLITY OF MARRIAGE.

ON March 19th Sir J. Hannen had before him another petition for a decree of nullity of marriage. It was sought to satisfy the court that the respondent, Mrs. Cannon, was insane at the time the marriage contract was entered into. The same line of argument was adopted as in the recent Durham case. It was proved by the medical evidence that five days after the wedding Mrs. Cannon was insane, and, further, that her father had been put under restraint for mental alienation. The judge decided the action on its general merits, holding that it was not proved that the respondent had shown unmistakable signs of insanity before the wedding ceremony; at the same time, he expressed his sympathy with the husband, who appears to have acted quite blamelessly. Dr. Savage is reported to have said that in his opinion the respondent "was insane before the marriage," and that, although "she understood to a certain extent what was taking place, she did not properly understand the matter." The terms of these statements not improbably represent the actual state of affairs, but yet it appears to us the doubt is too great to warrant the issuing of a decree. Apart from the legal construction of the evidence, it must not be forgotten that the possibility of the respondent's recovery is a very weighty factor against the advisability of releasing the petitioner from his contract. There should be unimpeachable testimony to warrant a decision that would leave a woman neither wife nor widow, yet something more than spinster. The history of this unhappy case gives additional proof of the correctness of the theory that hereditary neurotic taint strongly predisposes to unsoundness of mind.

THE MILITARY CLUBS.

WE have heard with much regret that there has of late been an apparently organised system of excluding from some of the service clubs certain classes of officers, and especially those of the Medical Department. We are very unwilling to believe that any body of gentlemen would be guilty of blackballing candidates who are eligible according to the rules of the club, and against whom there is nothing objectionable either socially or professionally. But our information has been derived from a quarter which leaves no doubt on our mind as to its accuracy, and unfortunately it is not the first time such a course has been followed in more than one of these clubs. We trust that the committees of the clubs where this has occurred may at once take steps to put down a practice which cannot fail to bring discredit upon the clubs themselves. We refrain from comment on the conduct of a few men—we feel sure they are but a few—who forget what is due not only to those whom they exclude, and who as a rule are quite as honourable as they are, but to themselves as gentlemen. We feel sure that no man of honour would feel himself justified in putting a black ball into the box of a candidate against whom nothing unfavourable can be alleged, and who is eligible by the rules of the club. On former occasions, when a similar practice was begun, the committees of the clubs succeeded in immediately checking it, and we cannot believe that on the present occasion their successors will fail either in the will or in the ability to bring about a similar result.

NERVOUS PYREXIA.

THE remarks on this subject in our issue of the 28th ult. having elicited some correspondence, we may take the opportunity of returning to the question. It is convenient to speak of heat centres without implying anything more than the mere existence of nervous apparatus capable of augmenting or diminishing the amount of heat formed in the organism. In discussing the subject we may leave aside the question of the localisation of the thermic centre or centres, merely stating that it is probable that the generation of heat in the organism is under the supervision of a principal centre and subsidiary centres, very much as is believed to be the case with the vaso-motor apparatus. The assumption that some such regulatory centres do exist is rendered most probable by all that is known of the physiology of temperature, and by nothing more so than the fact that a normal diurnal variation of temperature exists, and even manages to make itself apparent, when "fever" is present. Many modern authorities have advocated the view that some varieties of pyrexia are dependent on the direct action of the nervous centres regulating the temperature. In one of his Brown lectures, Mr. Victor Horsley strongly supports the doctrine that some cases of surgical interference give rise to pyrexia as the result of abnormal influences acting directly on sensory nerves, the influence of septic agents being supposed to be excluded. An excellent article on

the theory of a heat centre from a clinical point of view has been contributed by Dr. Hale White to the Guy's Hospital Reports, and Mr. Bowlby has written on the subject in the last volume of the St. Bartholomew's Hospital Reports. About a year ago Mr. Tait read a paper at the Obstetrical Society which tended to show that some of the rises in temperature observed in the puerperal state were the result of intrinsic disturbance of the heat regulating centres, and not due to the presence of poisons circulating in the blood. The subject is a wide one, and cannot here be fully discussed. But, granting the power of abnormal conditions of peripheral nerves to alter the production of heat in the organism, we do not see any reason why central disturbance of the same centres should not take place. Every argument of an *a priori* kind points to the conclusion that these things are possible. The difficulty is to prove the point. In any given case it would have to be shown that the nervous disturbance was primary if we would place on a safe foundation the occurrence of hysterical pyrexia. Now, it is possible that nervous disturbances of the kind under consideration may originate as the result of a poisonous state of the blood due to an idiopathic disorder of the processes of assimilation going on anywhere in the body, and it would be almost impossible to exclude the influence of such toxæmic conditions. Take, for example, those cases of pyrexia which have been supposed to be the direct result of emotional disturbance. Here it is perfectly legitimate to assume that the emotional element first deranges assimilation, which in turn causes the alteration of temperature either by the production of some abnormal material or in some other way. Even when sepsis is assigned as the cause of pyrexia, it is most probable that the septic poison acts on certain parts of the nervous system, and not directly by universal excitation of all the active tissues of the body. The considerations advanced, and many others that might be urged, place beyond cavil the conclusion that a definite proof of the existence of pure nervous pyrexia, however likely, is hardly susceptible of actual demonstration.

THE DENTAL REGISTER.

THE Dental Register for 1885 is issued. It shows that of dentists registered either on account of British qualifications, or as having been in practice as dentists before the Act came into force, there are 5255, or 36 less than in 1884. Those practising on foreign diplomas were 9, as against 5—viz., 6 Doctors of Dental Medicine of Harvard, 6 Doctors of Dental Surgery of Michigan. The explanation of the smaller number registered is probably to be found in the erasure of names by the registrar under clause 12. A case was heard in the Wandsworth Court a few days ago, in which a summons had been issued against Mr. A. G. Yeates for using the title of Surgeon-Dentist without being registered. But he was able to show that he had been registered up to 1880, and that his name dropped out merely by change of residence. Mr. Paget dismissed the summons, and ordered the complainant to pay costs.

SMALL-POX REGULATIONS IN ONTARIO.

A SPECIAL report has been issued by Dr. Bryce, Secretary to the Provincial Board of Health and Chief Medical Officer at Ontario, on an outbreak of small-pox in the township of Hungerford in Hastings County. The outbreak appears to have had its origin in infection brought from the Liverpool Industrial School. The first patient was an immigrant boy from that school who had left Liverpool on August 25th, had landed in Quebec with about forty other boys from the same class of school on Sept. 7th, and who sickened on Sept. 18th or 19th. The dates forbid the notion that the disease was contracted in Canada, and since there was no illness during the voyage, the infection was probably contained in the clothing or effects with which each boy was provided, and to which he had access during the course of his journey. This view is supported by the statement of the immigrant lad, to the effect that there was small-pox at the Industrial School two months before he came out. Certain steps are reported to have been taken with a view of preventing the spread of disease, which were doubtless very useful, but which certainly go beyond anything that is regarded as necessary in this country, where, as regards small-pox, the duty of self-protection by vaccination is deemed to suffice, in the place of many restrictions which it might otherwise be considered desirable to impose on others. Thus, lest any persons who had been exposed to infection should be making their way to other localities, instructions were conveyed to the station agent of the Ontario and Quebec Railroad to issue no tickets to persons other than those having passes from the medical officer of health. And again, with a view of preventing people from the northern part of the affected township from going south or east, police were placed on the roads leading into the districts referred to. We fear that if we adopted measures of this description in England, a new society would soon be formed to protest against the infringement of the liberty of the subject. But in the Far West such protests do not carry much weight in the face of a common danger to public health.

RELIEF IN PHYSICAL AND MENTAL SUFFERING.

IT is the frequent and painful duty of every member of the profession in active practice to detect in some of his patients, when consulted, it may be, about some trifling indisposition, the beginning of one of the many fatal diseases for which our art can suggest no remedy, but simple palliation. After such a diagnosis a medical man would lack common humanity who did not experience a feeling of commiseration for a fellow-creature thus afflicted. Few men can leave a patient thus doomed to a premature end without reflecting on the many shortcomings of the professional art it is his province in life to administer. To whom is it best that the painful intelligence should be made known? Should it be to the patient himself, young, full of hope and promise it may be, or to his friends? The embarrassment of such a position is at once apparent, and often to the patient it begets mistrust of a medical man's judgment; and not unfrequently to make the painful fact known to the friends begets an equal mistrust. Even with such a prospect before him the duty of a medical man is a plain one. Candour, if not to the patient, to his friends is clearly a medical duty, yet very often it is evaded as being too trying to discharge. In another class of cases, where recovery is not so utterly hopeless, but where danger is imminent, it is less easy to define the scope of a medical practitioner's duty. He very naturally leans on the resources of his profession, which under his administration have often before rescued a patient from an almost inevitable abyss. Under such circumstances hopefulness becomes in itself a remedy, and not infrequently a very potent one. To communicate his anxiety about the case to the patient's friends is often tantamount to communicating it to the patient; for it is seldom that such anxiety in immediate friends can be sufficiently suppressed to escape the sufferer's notice. But very few men indeed fail to feel the sense of responsibity thus incurred of permitting a fellow-creature to pass from this life unwarned, it may be unprepared. The foregoing reflections naturally lead to the question, Is it within the province of a medical attendant to administer more than to the physical ailments of the body? To speak, it may be, a

word of warning or of spiritual comfort is to pass from the domain of the physician to that of the divine. An opportunity to do this is a frequent occurrence to every practitioner. Men differ much in their sense of duty in this respect. Each heart must be its own guide under such circumstances. While indiscreet intrusion into the province of the clergy is to be deprecated, the fact is not to be lost sight of that medical men are members of the great Christian community to whom are given more than usual opportunity, intended not to be wasted, but used. These thoughts have been suggested by some extracts from the writings of Charles Kingsley, compiled by his wife, and dedicated to his memory, entitled "Out of the Deep." To be the means of placing such comfort within reach of the afflicted as this little work affords can scarcely be beyond the sphere of medical duty.

THE DRINK BILL FOR 1884.

IT is very unsatisfactory to find that the drink bill for last year is bigger by £872,981 than that for the year before. More beer and less spirits have been drunk. The Chancellor of the Exchequer will, nevertheless, lose £260,000 of revenue in consequence of the fact that beer pays so much less a tax than spirit. Thus British spirits are taxed 10*s.* per gallon, foreign spirits 10*s.* 4*d.* per gallon, and wine from 1*s.* to 2*s.* per gallon, according to strength; beer is only taxed $2\frac{1}{12}d.$ per gallon. Of two evils, beer and spirits, beer is perhaps the lesser; but it is by no means a drink that can be taken in large quantities with impunity. "He that drinks beer thinks beer," was Dr. Johnson's way of expressing its dulling effects on the brain; and it serves other organs, equally useful and essential, in the same way, giving ample work for physicians, and spoiling the best work of surgeons.

TROPHIC DISORDERS.

THE existence of special trophic nerves has always been denied by Dr. Brown-Séquard, who believes that the occurrence of acute eschars which appear after fracture of the vertebral column and myelitis may be avoided by preserving the skin from the irritating effects of the normal effete discharges. He believes the trophic lesions which result are due to an irritative lesion caused by simple section of the nerve aggravated by external injury. The importance of the external injury is attested by the following experiment. If a guinea-pig be rendered epileptic by section of the sciatic nerve, the lesions which usually appear on the leg are not produced if hemisection of the spinal cord be performed on the same side of the body. This hemisection prevents the animal from carrying the injured extremity to its mouth, and thus does away with the injury casually inflicted on the limb by the teeth.

MEASLES IN SUNDERLAND.

IT appears from the Registrar-General's recent weekly returns that the annual death-rate in Sunderland was equal to 42·1, 48·3, and 44·1 per 1000 respectively in the first three weeks of March; and it may also be noted that the rate averaged 32·7 in the first eleven weeks of this year. The main cause of this excess has been an exceptionally fatal epidemic of measles, which has caused 244 deaths within the borough since the beginning of the year. In addition to these deaths from measles, 20 from scarlet fever, 9 from whooping-cough, 7 from "fever," 4 from diphtheria, and 4 from small-pox have also been registered during the same period. Indeed, the principal zymotic diseases have caused a death-rate equal to 11·1 per 1000 during the first eleven weeks of this year, which is more than five times the mean death-rate from the same diseases in the twenty-eight large English towns dealt with by the Registrar-General. This disastrous waste of life, mainly of child life, will not have been entirely without compensation if it lead to an exhaustive inquiry into the causes which have conduced to the present exceptional mortality from measles. For it is impossible to doubt that the proportional mortality among the cases of measles during the present epidemic in Sunderland has been very considerably above the average. The proportional mortality of 89 cases treated last year in the London Fever Hospital was only 3·4 per cent.; this proportion would signify no fewer than 7000 cases in Sunderland since Christmas! It is worthy of note, moreover, that nearly 200 deaths from this disease occurred in Sunderland in 1882.

THE LATE MEDICAL OFFICER OF HEALTH FOR ST. PANCRAS.

AT a meeting of the Mansion House Council on the Dwellings of the People, held at the Mansion House on March 17th, the following resolution was unanimously passed, and the Hon. Secretary was requested to communicate the same to the press:—

"This Council learns with great regret that Mr. Shirley Murphy has felt himself compelled to resign his position as medical officer of health of St. Pancras, in consequence of the difficulties which he has encountered at the hands of certain members of his vestry, which have rendered it impossible for him to efficiently and conscientiously continue to discharge his duties. The exceptional abilities of Mr. Murphy and his wide experience in sanitary matters render his resignation an incalculable loss to the parish. This occurrence serves also to emphasise in the strongest manner the necessity for an immediate change in the relations of medical officers of health to the local authorities. In the opinion of this Council, the change should take the direction pointed out in its report, that medical officers of health should hold their office at the will of the Local Government Board only."

We most heartily endorse the spirit of the above resolution. Mr. Murphy is far too good a medical officer of health to be lost to the public service, and we confidently hope and trust that the resignation of his late office, however unfortunate for St. Pancras, will lead to his obtaining a more congenial post, as well as to the early amendment of the law as affecting the efficiency and independence of officers of health.

THE SPANISH HYGIENIC SOCIETY.

THE Spanish Hygienic Society has commenced its annual session under the presidency of Señor Pidal, Minister of Patronage. It does not seem to have been as successful as it was at first hoped it would have been in stirring the Government and the public to set about the reformation of the numerous sanitary defects which seem to be especially abundant in Spain. Many of the influential personages whose names formerly appeared as its members have from one cause or another dropped off. It is at present mourning the loss by death of one of its most active and zealous workers, Señor Mendez Alvaro. The *Genio Medico-Quirurgico* complains that the Government, though ready to assist and subsidise most trivial projects, is unwilling to lend a helping hand to such an important matter as the sanitation of the country.

COCAINE AS A HÆMOSTATIC.

IN the *Philadelphia Medical Times* of Feb. 21st, Dr. W. F. Waugh records a case of purpura with repeated hæmorrhages from the lips and gums, in which the application of a 4 per cent. solution of hydrochlorate of cocaine proved eminently successful, after the failure of many other hæmostatics to arrest the bleeding.

THE PRESIDENCY OF THE ROYAL COLLEGE OF PHYSICIANS.

IN accordance with custom, the Fellows of the College of Physicians meet in Comitia on the day after Palm Sunday, to elect a President. Although the office is an annual one, it is customary to retain a President in office for at least five years, and even longer, as was the case with Sir Henry Halford, who was President for twenty-two years, and Dr. Paris, for thirteen years. There is therefore no reason, unless it be Sir William's own expressed desire, why the present distinguished occupant of the presidential chair should not be re-elected for another term.

MILITIA SURGEONS.

WE would call the attention of all militia surgeons to the notice of motion given by Sir E. Wilmot for this day (Friday) to refer their claims for compensation to a select committee, and urge the necessity for militia surgeons to bring what influence they possess to bear on members of Parliament on both sides of the House to support the motion. If they do so there is every prospect of success, as on the last occasion, in 1883, the motion was defeated by only a very small majority, which was composed largely of members of the Government. This is not a party question, and the request to refer the case to a select committee is so reasonable that we hope the Government will see their way to grant it. It is not likely that the motion can come on till after Easter on account of the Redistribution Bill; this gives more time for applying to members of Parliament.

CAUTERISATION OF THE HARD CHANCRE.

THE treatment of excising the hard chancre does not appear to have met with favour by surgeons generally. M. Hallopeau has attempted the destruction of the primary sore by means of the powerful bichloride of mercury. In a recent number of the *France Médicale* he narrates a case of hard chancre in a man aged forty, on whom he practised the treatment of cauterising the sore by placing a thick layer of powdered corrosive sublimate thereon five days after the sore was first noticed; the powder was removed at the end of half an hour, and the ulcer dressed with dried lint. Some pain was experienced. The scab came away on the eighth day, and cicatrisation was completed by the sixteenth day. Nevertheless, the symptoms of secondary syphilis appeared in due course.

DEWSBURY RESPONSIBLE FOR SMALL-POX IN LEEDS.

AN instructive letter to the *Yorkshire Daily Post*, signed "PAX," points out the burden and cost which have been occasioned to Leeds by the occurrence of small-pox in three children who were born in the Dewsbury Union, and who, according to the lax views on such matters prevalent there, had not been vaccinated. The danger, however, has not terminated with them; four other cases have occurred in the same locality, and it is feared that others will arise. This, says the writer, is one result of the folly shown by the Dewsbury Board of Guardians in not enforcing the vaccination law within their union.

CREMATION IN ENGLAND.

WE understand that at the crematory erected near Woking station by the Cremation Society of England the body of a lady was on the 25th inst. reduced to ashes, in the presence of the representatives of the deceased. The cremation lasted one hour only, and was pronounced most satisfactory. This is, we believe, the first instance of cremation being publicly performed in England.

UNIVERSITY COLLEGE, LONDON.

THE vacancy caused by the resignation of Professor John Marshall, of the Chair of Surgery in University College, has been filled up, we are pleased to announce, by the appointment of Professor Marcus Beck; the chair carries with it the post of full surgeon to the hospital. We feel sure that the appointment of Professor Beck will meet with the approval of all who are interested in the welfare of the College.

DR. STORRAR.

WE understand that, in consequence of his increasing age, Dr. Storrar intends to resign the chairmanship of Convocation of the University of London at the next meeting in May. Dr. Storrar has most ably discharged the duties of the office for the long period of twenty-one years. We presume that, in accordance with the custom of the University, his successor will be chosen from the Faculty of Arts or Laws. An influential requisition has been signed asking F. J. Wood, Esq., LL.D., to allow himself to be nominated. Sir Julian Goldsmid's name has also been mentioned as a probable candidate.

SANITARY CONDITION OF QUETTAH.

THE Calcutta Correspondent of the *Daily News* telegraphs that there will be three divisions of the new Quettah Force, numbering 24,000 men, drawn from the three Presidencies, and that there will be a reserve of 11,000. We find confirmation of this in Reuter's telegram of the same date to the press generally. Such being the warlike movements necessitated by the state of affairs on the Afghan frontier, we take this opportunity to recall attention to the unsatisfactory sanitary condition of Quettah, and the large amount of sickness and mortality from enteric fever resulting therefrom. It was not long since we had occasion to draw attention in THE LANCET to the mortality in a British regiment marching thence down the Bolan Pass. We trust that the matter may receive the prompt attention it demands.

"STRANGE ADVENTURES" OF A BULLET.

A CASE of pistol-wound of the thorax has recently been recorded by Schmidt in which the bullet penetrated one of the left pulmonary veins, and then passed along it into the cavity of the left auricle, merely leaving a small erosion on the posterior wall of the vein. From the auricle the bullet must have gained access to the left ventricle, and must then have been forced into the aorta, and so down to the femoral artery, where the projectile was found, apparently accidentally, at the autopsy. The reporter declares that no other explanation of the presence of the projectile in the femoral artery can be given.

AN INSANITARY LOCALITY IN NORWICH.

A MEMORIAL has been presented to the Norwich Corporation complaining of the insanitary condition of a particular locality in New Catton. It was stated that "the house-drainage, frequently blocked, was conveyed into cesspools, some of which were only covered by trap-doors. Some of the wells had been condemned, as the water was unfit to drink. The cesspools were provided with a pipe which conveyed the filth into the undrained road, where it remained till it evaporated." The Sanitary Committee was urged by the member presenting the memorial to move in this matter as speedily as possible. It was, he observed, much more important for the welfare of the city than the introduction of party feeling and the ticketing of individuals "blue and white," "orange and blue," &c. A

member stated that he had previously complained of the condition of this locality. Some of the houses had no water supply, because the wells could not be used, and the water-company had not laid on water for the neighbourhood. The fountain head of typhoid fever was just such a locality as this, and if sanitary precautions were neglected a severe retribution was sure to follow. It was stated that the medical officer had said that such a condition of things ought not to be allowed to exist. The matter was referred to the sanitary committee, who, we hope, will take immediate steps to compel the owners or those who are liable to put an end to such a disgraceful state of things.

"CHARLEY KINGSTON'S AUNT."

IT has lately been rumoured abroad that the interesting medical novel bearing the above title, and published as "by Pen Oliver, F.R.C.S.," is in reality the work of Sir Henry Thompson. This rumour we can confirm, since we have the means of knowing that Sir Henry, during his last autumn holiday, gave up his hitherto invariable habit of painting a picture (usually for the Royal Academy), and devoted his leisure time to writing a medical story—a self-imposed task which was accomplished during the limits of his holiday.

IN answer to a memorial, signed by upwards of fifty Liberal members of Parliament, urging the repeal of the Contagious Diseases Acts before the present Parliament is brought to a close, Mr. Gladstone has replied that he fully recognises the importance of the representation, but he cannot pledge himself on the subject beforehand, especially at a moment when the time of Parliament is forestalled under exceptional circumstances. He anticipates, however, that some statement will in all probability be made before the end of the session indicating the views and intentions of the Government regarding this matter.

THE death is announced of Dr. Morison Watson, F.R.S., Dean of the Medical School, Curator of the Medical Museum, and Professor of Anatomy at Owens College, which took place on Wednesday last at Manchester, in his fortieth year. On February 3rd, whilst addressing the students, he ruptured a bloodvessel in the head, and had been almost continuously unconscious since. He was the author of numerous articles in scientific journals, his most important work being a contribution to the Reports on the Scientific Results of the Voyage of the *Challenger*.

CONCERNING the vacancies in the staff of the East Suffolk Hospital, a question has arisen as to the eligibility of an honorary physician, who was formerly for several years house-surgeon of that institution, on account of the distance of his present residence, which is about eight miles. A good deal of feeling seems to have been excited about the appointments, and the meeting of the governors has been adjourned for a month. There are three candidates for the two vacancies.

SURGEON I. R. LANE, attached to No. 1 Field Hospital, who was severely wounded in the assault on the Arab position at Hasheen on the 20th inst., has, we regret to learn, since died. Surgeon Lane entered the service so recently as August last. On the 22nd inst. Surgeon M. Digan, R.N., was severely wounded.

THE official report of the Commissioners appointed to inquire into the educational arrangements, &c., of the Queen's College, Ireland, has just been issued as a Parliamentary Blue Book.

AN election of a correspondent of the section of Medicine and Surgery of the Paris Academy of Sciences took place recently. The candidates were Dr. Hannover of Copenhagen, Sir James Paget, Dr. Leudet of Rouen, Sir Joseph Lister, and Dr. Panum of Copenhagen. For Dr. Hannover, who was elected, forty-one votes were given, against five for Sir Joseph Lister and three for Dr. Panum.

THE firm of J. F. Richter, of Hamburg, are about to publish a work entitled "Ueber Elephantiastische Formen," which has been edited by Dr. Esmarch and Dr. Kulenkampff. A large amount of information on the obscure group of diseases collectively known as "elephantiasis" may confidently be anticipated in this forthcoming volume.

WE learn from our contemporary, the *Bombay Gazette*, that on the eve of the occasion of Dr. Blanc leaving Bombay early this month on furlough to Europe, and retirement from the service thereafter, a large concourse of native medical practitioners met at a tea-party in his honour.

THE University of Vermont has (says the *Canada Lancet*) announced its intention of granting degrees in Medicine to registered British medical practitioners who pass a satisfactory examination in medicine, surgery, and midwifery. The fee to be charged is $30.

WE have received from the Fine Art Society an engraving which they have recently published of Professor Huxley. The likeness is an excellent one, and all who desire to possess a characteristic portrait of Mr. Huxley will do well to inspect this production.

DR. THOMAS BARLOW, F.R.C.P. Lond., has been appointed full Physician to the Hospital for Diseases of Children, Great Ormond-street, in place of Dr. Gee, resigned.

THERMO-ELECTRIC PROSTATOTOMY.

ENLARGEMENT of the prostate is one of the affections of the genito-urinary apparatus which, even in these days of operative triumphs, has been least successfully attacked by the surgeon. A fair estimate of the preference given to palliative measures may be inferred from a passage in Erichsen's last edition.[1] "The sole treatment of enlarged prostate consists in the regular use of the catheter, in order to draw off retained urine; and when once this treatment has been commenced, it must be continued for the remainder of life, the patient being taught to use the instrument for himself." This is in substance the orthodox teaching of the older, as of the modern, cliniques; but Professor Bottini of Pavia counsels a much bolder practice, which substantially amounts to making a free passage for the urine by thermo-electric cauterisation of the prostate.[2] Here is a case in point.[3] Signor P. A——, aged sixty-eight, from Noghera, had been unable for some years to micturate unassisted, when, at the commencement of last June, he consulted Professor Bottini at Pavia. The urine was then highly ammoniacal, with muco-purulent deposit, only evacuated through the catheter. The prostate was enlarged. The state of the urine and the power of the bladder were greatly improved by cold vesical irrigation, with solutions of boracic acid and of sulpho-carbolate of zinc; general nutrition and strength revived; the urine became neutral and then acid, and was expelled with impetus

[1] The Science and Art of Surgery, vol. ii., p. 1062, 1884.
[2] L'Iscuria da Prostatici Ingrossamenti del Prof. E. Bottini in Collezione Italiana di Letture sulla Medicina, diretta dal Dott. Giulio Bizzozero, vol. ii., No. 2. Milano, 1882.
[3] Gazzetta degli Ospitali, Feb. 11th, 1885, No. 12.

through the catheter. On the 5th of July, while the patient was under chloroform, a small quantity of urine having been withdrawn, Professor Bottini introduced his thermo-electric cauteriser into the bladder, turned the cauterising blade (A, Fig. 1) against the swelling, and lighted the cautery by connecting it with the battery poles, while a current of iced water, through B and C, kept the staff cold. The generation of cauterising heat at the desired part of the instrument, which is kept cool throughout its length, is rendered possible by its method of construction as a double-channelled metallic catheter. Within the inner tube are the insulated electric wires, leading down to a platinum plate, and heating it when the circle is completed. At the same time a stream of cold water circulates in the space between the two tubes, and prevents the diffusion of heat to the surrounding parts. In the case under notice the burning and consuming of the prostate were continued

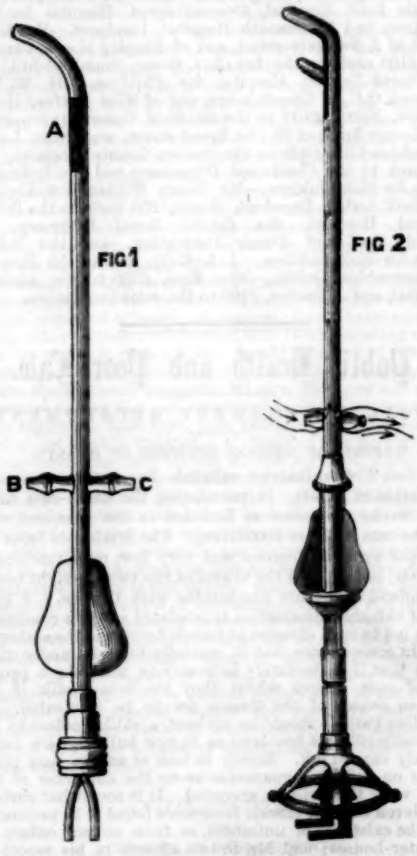

FIG 1

FIG 2

during forty-five seconds, when the instrument was withdrawn. On handing it to those present they found it cold throughout. A catheter was fixed in the bladder, and the urine drawn every three hours. No fever ensued, and belladonna suppositories proved effectual in relieving occasional vesical tenesmus. Four days later, the patient being in a very good state, the catheter was removed and the urine directed to be drawn every six hours, the bladder to be injected morning and evening with a 2 per cent. solution of sulpho-carbolate of zinc. On the 7th of August small sloughs were passed with the urine; they increased in quantity the following day, and gradually decreased without any trouble to the patient. The first natural emission of urine took place in drops twenty-four days after the operation; increasing day by day in quantity and impetus. The catheter continued to be used occasionally, from time to time, to prevent any possible accumulation. At the expiration of three months micturition was natural and the urine acid, clear, and healthy. At the date of the last report (January 23rd, 1885, six months and a half after the operation) the patient was fully restored to robust health. In reviving the tone of the bladder great assistance had been derived from the internal administration of the extract of nux vomica, and the local application of an induced electrical current.

Fig. 2 represents a thermo-electric incisor which Professor Bottini employs, according to the indications of particular cases, on the same principle as the instrument already referred to. He dwells on the advisability of accustoming the patient to the introduction of the instrument before the operation, which is performed in the ordinary lithotrity position. The rectum is to be previously evacuated with a bland enema; but unless the bladder be wholly, or nearly empty, injection of water is not necessary. The operation is not painful, and anæsthesia is only necessary in the case of timid or very sensitive patients. After the operation, tepid hip-baths are of great service, and so are belladonna suppositories.

To form an accurate judgment on the value of this procedure, it would be interesting to have records of a series of cases of prostatic enlargement treated by thermo-electricity. On one point especially, information is desirable—the permanency of the improvement. General experience teaches that eschars after burns contract much more than after incised wounds; and it remains to be proved whether the free passage made by the electric cautery in an enlarged prostate remains patent, or is liable to become the seat of thermo-traumatic stricture. Pending the answer, which only clinical experience can supply, the Professor of Pavia may be congratulated on having devised a method of treatment for enlarged prostate which has achieved some brilliant results, and promises to be a real addition to surgical therapeutics, in a malady which has hitherto baffled attempts at radical treatment.

UNIVERSITY OF DURHAM FACULTY OF MEDICINE.

THE following regulations for the examinations for the degree of Bachelor in Medicine of the University of Durham have been adopted, and will come into force on May 1st, 1885, viz.:—

There will be three examinations instead of two, as heretofore.

The subject of materia medica and pharmacy will be transferred from the final examination to the second examination, and the subjects of chemistry and botany from the second examination to the first examination.

The subjects of each examination will be as follows:—First examination: (1) elementary anatomy; (2) elementary physiology; (3) chemistry and chemical physics; (4) botany and medical botany. Second examination: (1) anatomy; (2) physiology; (3) materia medica and pharmacy. Third examination: (1) medicine; (2) surgery; (3) midwifery and diseases of women and children; (4) pathology; (5) medical jurisprudence; (6) therapeutics; (7) public health.

Candidates will be admitted to each of these examinations after duly certified attendance at a recognised medical school on courses of instruction in the various subjects of the examination, as set forth in the schedules of certificates issued by the University. Each examination must be passed in its entirety before the next can be proceeded with.

As heretofore, each candidate before presenting himself for the third or final examination must have spent one winter and one summer session in attendance at the University of Durham College of Medicine, Newcastle-on-Tyne, and must have passed one of the recognised arts examinations.

A candidate who has passed the first examination of the Conjoint Board in England of the Royal College of Physicians of London and the Royal College of Surgeons of England will be exempt from the first examination of the University of Durham, except in the subject of chemistry, on which he will be re-examined.

A candidate who has passed the first and second examinations of the University will be exempt from the first and second examinations of the Conjoint Board, and will be entitled to present himself for the final examination of the Board on the completion of the necessary curriculum.

Full particulars of the examinations, together with synopses of the subjects schedules of certificates, and any information

required, may be obtained on application to the Registrar of the University of Durham College of Medicine, Luke Armstrong, M.D., 26, Clayton-street West, Newcastle-upon-Tyne.

WILLS OF MEDICAL MEN.

THE will of Edward James Parry, M.D., late of Swan Hill, Shrewsbury, who died on Dec. 19th last, was proved on the 19th ult. by Mrs. Bertha Parry, the widow, and Mr. Malcolm Scarlett Parry, the son, the acting executors, the value of the personal estate amounting to over £15,000. The testator, subject to the payment of a few legacies thereout, leaves all his property upon trust for his wife for life; and at her death £3500 upon trust for his daughter Bertha Susannah Jones, certain railway stocks upon trust for his daughter Caroline Helen Parry, and the ultimate residue of his property to his said son.

The will of St. George Wade Tucker, M.D., retired Surgeon-Major, Her Majesty's Indian Army, formerly of the Island of Bermuda, but late of Edmondsham House, Bournemouth, who died on Jan. 13th last, was proved on the 6th ult. by Mrs. Julia Catherine Maréchaux, the sister, one of the executors, the value of the personal estate exceeding £6000. The testator leaves all his property upon trust for his said sister for life, and then for his two nieces, Georgiana Fanny Maréchaux and Alice Louisa Maréchaux.

The will of Charles Langstaff, M.D., late of Southampton, who died on Nov. 9th last at Havre, was proved on the 2nd inst. by Mrs. Anne Langstaff, the widow and sole executrix, the value of the personal estate exceeding £3600. The testator gives all his real and personal estate to his wife absolutely.

The will of John Toswill Veitch, M.D., of "Brahrang," Warrington-road, Ipswich, who died on Nov. 10th last at King's-road, Chelsea, was proved on the 24th ult. by Mrs. Celia Gertrude Veitch, the widow, Mr. Harry James Veitch, the nephew, and Mr. Thomas Drew Dewdney, the executors, the value of the personal estate exceeding £2000. The testator bequeaths all his articles of personal, domestic, or household use or ornament, excepting some specially bequeathed, to his wife; £250 to his nephew, Arthur James Veitch, of Brisbane; and numerous legacies to relatives and others. The residue of his real and personal estate, including his share in some plantations abroad, he leaves upon trust for his wife for life; and then, subject to an interest in part given to his brother Robert and his wife Sarah, for his nephews and nieces, Peter Christian, Masseyna, Quinten Reid, Walter, Robert Louis, Maria Rebecca, Helen Mary, Alice Susan, Florence, and Anna Veitch, in various proportions.

The will of Nathaniel John Haydon, M.D., F.R.C.S., late of Tiverton, Devon, who died on December 6th last, was proved on the 27th ult. by Mr. John Nathaniel Haydon, one of the executors, the value of the personal estate exceeding £1500. The testator leaves his property upon trust for his daughters, Mary and Edna Kate; but his son Edgar is to be allowed to select a medical book or instrument.

The will of James Robertson, M.D., formerly of Pall Mall, but late of 14, Queen's-square, Bath, Physician and Surgeon, who died on December 2nd last, was proved on the 8th ult. by Mr. William Woodham, the sole executor, the value of the personal estate exceeding £1300. The testator, after giving some legacies, gives all his real estate and the residue of the personalty to his brothers William and Robert.

The following legacies have recently been left to hospitals and other medical institutions:—Mr. William Hartridge, of the Stock Exchange, and of Addelam, Upper Deal, Kent, £200 to the Royal Hospital for Incurables, Putney.—Mr. Henry Skynner, late of Temple Chambers, 32, Fleet-street, Solicitor, and of 6, Neville-terrace, Onslow-gardens, South Kensington, £500 to St. Bartholomew's Hospital, in commemoration of his brother, and to be called the "Robert Charles Skynner Prize Fund," the income to be given annually to the student passing the best examination in the anatomy of the human body and the best treatment for scarlet fever and rheumatic fever; and 50 guineas each to the Seamen's Hospital Society, Greenwich, St. Bartholomew's Hospital, St. Mark's Hospital for Fistula, Charterhouse-square, St. Mary's Hospital, Paddington, the London Hospital, Whitechapel, the Cancer Hospital, Fulham-road, and the Hospital for Consumption, Fulham-road.—Miss Mary Clark, of 10, Albert-road, Regent's-park, £400 to the British Home for Incurables; £300 to the Central London Ophthalmic Hospital, Gray's-inn-road; £250 each to the Royal Free Hospital, Gray's-in-road, the University College Hospital, Upper Gower-street, and the City of London Hospital for Diseases of the Chest, Victoria-park; and £200 each to the Hospital for French Refugees, Victoria-park, King's College Hospital, and the Royal Westminster Ophthalmic Hospital, King William-street.—The Right Hon. Mary Anne, Viscountess Torrington, £200 each to the Brompton Hospital for Consumption, and the St. Andrew's Convalescent Home, Folkestone.—Mr. Edward Jauverin Emanuel, of 15, Austin Friars, Solicitor, and of 4, Hyde-park Mansions, Hyde-park, £20 each, free of legacy duty, to University College Hospital, the London Hospital, St. Mary's Hospital, Paddington, the Male Lock Hospital, the Female Lock Hospital, Ormond-street Hospital for Sick Children, and Portsmouth Hospital, Landport.—Mr. Alfred Tylor, of 2, Newgate-street, and of Shepley House, Carshalton, £100 each to the Invalids' Home, Stamford-hill, and the North-Eastern Hospital for Children.—Mr. William Overend, Q.C., of Lincoln's-inn, and of West Retford House, Retford, Notts, £100 to the Sheffield General Infirmary.—Mr. George Trist, of 62, Old Broad-street, and Eliot Lodge, Sydenham-hill, £200 to the Sussex County Hospital, and £50 each to the Charlwood Dispensary and the Sydenham Home for Sick Children.—Mr. Henry William Franklyn, of Shedfield Lodge, Droxford, Hants, £50 each to the Bristol General Hospital, the Bristol Royal Infirmary, the Bristol Deaf and Dumb Institution, and the Bristol Home for Sick Children.—J. L. Kelly, £50 to the Hospital for Incurables, Dublin.—Miss Ross, £500 to the Adelaide Hospital, and J. Castles, £100 to the same institution.

Public Health and Poor Law.

LOCAL GOVERNMENT DEPARTMENT.

REPORTS OF MEDICAL OFFICERS OF HEALTH.

Carlisle Urban District.—Carlisle has now an estimated population of 37,300. In calculating the death-rate fifty-three weeks are taken as included in the year, and with this the rate is 21 per 1000 living. The death-rate from the principal zymotic diseases was very low, only reaching 1 per 1000; indeed, it is the lowest of the twenty-eight towns in England which are comparable with Carlisle. A good deal of valuable information is tabulated as to the conditions which led to such diseases as enteric fever, and the authority have, in consequence, had it specially brought under their notice that it is absolutely necessary to maintain a proper control over houses whilst they are being built if the common causes of the disease are to be eradicated. No town like Carlisle should be without a skilled officer to see that really efficient bye-laws as to new buildings are being properly carried out. Merely to look at and to pass plans affords no sufficient guarantee as to the character of the actual work that will be executed. It is somewhat curious that eleven cases of enteric fever were found to be associated with the existence of nuisances, as from animal ordure at slaughter-houses; and Mr. Brown adverts in his report to the fact that, elsewhere, such a condition has been regarded as favourable to a *de novo* origin of the contagium. Under any circumstances the conditions ascertained speak but ill for the control and inspection of slaughter-houses in Carlisle; and Mr. Brown does not fail to point out to his authority the defects that call for remedy in this direction.

Rochester Urban Sanitary District.—Dr. Sladden Knight states the death-rate to have been 20·8 per 1000, which, by deducting deaths in hospitals, is reduced to 16·8. The death-rate under one year was 191 per 1000 births. The zymotic death-rate was 3·2, which is partly due to deaths in St. William's Hospital from infectious disease contracted outside the district; also to the excessive temperature in August and September, which caused many infantile deaths from diarrhœa. There was only one fatal case of small-pox which was contracted in London. Great care was taken both in this instance and in such others as occurred, by vaccination, fumigation, disinfection, &c., to prevent the spread of the disease with such success that in no instance

did any second case occur. The existence of St. William's Hospital as a means of isolation for infectious cases was of very great advantage. The patients have been much pleased with the attention they received in it, and the mortality has been very moderate. The governors have wisely desisted from demanding payment for maintenance from those in needy circumstances, rightly judging that as the public generally benefit by the removal from their midst of infectious cases, so the public ought not to grudge the expense of such protection.

Chesterfield Rural District.—In this extensive colliery district great improvement has been effected during recent years under the administration of Dr. Angus Mackintosh. The death-rate for 1884 was 17 per 1000. Scarlet fever periodically adds materially to the mortality. The district contains a large population of very independent workpeople at the child-bearing age, and hence there is a large number of children. In addition to this, and notwithstanding numerous efforts in this direction, it has not yet been found feasible to secure a combination of authorities for the purposes of hospital provision. The result is a recurring necessity for school-closing, which must seriously interfere with education, and which might otherwise not be requisite. During 1884 four elementary schools were thus closed. Measles again seriously affects the infantile population, but having regard to the fact that this disease is probably infective at a stage before it is at times even recognisable, the chances of staying its prevalence in such a district as this are not very hopeful. Some cases of enteric fever in connexion with contaminated water are recorded, and outbreaks of small-pox have occurred, which go to show the great need for adequate means of isolation. Amongst the several places still needing an improved water-supply, Dr. Mackintosh especially refers to the village of Gleadless Townend, where repeated attacks of enteric fever have occurred. Many other matters are adverted to in this interesting report, and as we look through the record it gives of excellent sanitary administration in a district which, mainly owing to Dr. Mackintosh's energetic labours, has been one of the foremost in carrying out structural sanitary works, we can only regret the fact that, now that the most burdensome part of the work is finished, a majority of the authority fail to appreciate as they should do the services which have brought about so many satisfactory results.

Halifax Combined District.—This important district comprises the Halifax rural and seventeen urban districts. Taking the district as a whole, the death-rate has been 18·8 per 1000, which is certainly too high; it has varied from 12·5 in Luddenden Foot to 25·5 in Rastrick. The zymotic death-rate for the entire district was 2·1 per 1000. Rastrick, where the highest rate of mortality prevailed, is a place for premature marriages and neglect of children, and many of the latter die, before reaching the age of five years, of scarlet fever and other zymotic affections. Dr. Britton shows by his recent of work in connexion with each sanitary district that a careful supervision is maintained. Analyses of suspected waters are regularly made, and numerous works both of water-supply and drainage are carried out with a view of remedying the defects which come under notice.

VITAL STATISTICS.

HEALTH OF ENGLISH TOWNS.

IN twenty-eight of the largest English towns 5823 births and 4018 deaths were registered during the week ending the 21st inst. The births exceeded by 9, and the deaths by 391, the average weekly numbers during 1884. The annual death-rate in these towns, which had been equal to 20·6 and 22·1 per 1000 in the preceding two weeks, further rose last week to 23·5. During the first eleven weeks of the current quarter the death-rate in these towns averaged 22·6 per 1000, against 24·4, the mean of the rates in the corresponding periods of the nine years 1876-84. The lowest death-rates in these towns last week were 14·0 in Derby, 17·4 in Birkenhead, 18·2 in Brighton, and 19·0 in Portsmouth. The rates in the other towns ranged upwards to 29·6 in Newcastle-upon-Tyne, 31·7 in Cardiff, 32·9 in Manchester, and 44·1 in Sunderland. The deaths referred to the principal zymotic diseases in the twenty-eight towns, which had ranged in the preceding ten weeks between 356 and 398, rose last week to 443. These included 164 from measles, 119 from whooping-cough, 41 from scarlet fever, 37 from "fever" (principally enteric), 32 from diphtheria, 26 from diarrhœa, and 24 from small-pox. No death from any of these zymotic diseases was recorded last week either in Brighton or in Blackburn; whereas they caused the highest death-rates in Bristol, Cardiff, and Sunderland. The highest death-rates from measles occurred in Bristol, Cardiff, and Sunderland; from whooping-cough in Plymouth, Norwich, and Bristol; from scarlet fever in Wolverhampton; and from "fever" in Norwich. The 32 deaths from diphtheria in the twenty-eight towns included 20 in London, 3 in Leeds, 2 in Liverpool, and 2 in Salford. Small-pox caused 43 deaths in London and its outer ring of suburban districts, and 1 each in Liverpool, Manchester, Bradford, Sunderland, and Newcastle-upon-Tyne. The number of small-pox patients in the metropolitan asylum hospitals situated in and around London, which had declined in the preceding four weeks from 1223 to 898, had further fallen to 830 on Saturday last; the admissions, however, which had been but 94 and 104 in the preceding two weeks, further rose last week to 137. The Highgate Small-pox Hospital contained 83 patients on Saturday last, 8 cases having been admitted during the week. The deaths referred to diseases of the respiratory organs in London, which had been 374 and 455 in the preceding two weeks, further rose last week to 487, and exceeded the corrected weekly average by 3. The causes of 101, or 2·5 per cent., of the deaths in the twenty-eight towns last week were not certified either by a registered medical practitioner or by a coroner. All the causes of death were duly certified in Leicester, Newcastle-upon-Tyne, and Derby. The largest proportions of uncertified deaths were registered in Oldham, Hull, and Halifax.

HEALTH OF SCOTCH TOWNS.

The annual death-rate in the eight Scotch towns, which had been equal to 22·8 and 24·4 per 1000 in the preceding two weeks, were 24·2 in the week ending the 21st inst., exceeding by 0·7 the mean rate during the same week in the twenty-eight large English towns. The rates in the Scotch towns last week ranged from 13·8 and 17·7 in Aberdeen and Dundee, to 29·0 in Paisley and 29·9 in Glasgow. The 500 deaths in the eight towns included 35 which were referred to whooping-cough, 28 to measles, 7 to scarlet fever, 6 to diarrhœa, 5 to diphtheria, 4 to "fever" (typhus, enteric, or simple), and not one to small-pox; in all, 85 deaths resulted from these principal zymotic diseases, against 71 and 88 in the preceding two weeks. These 85 deaths were equal to an annual rate of 3·5 per 1000, which was 0·9 above the mean rate from the same diseases in the twenty-eight English towns. The 35 deaths from whooping-cough showed a further increase of 13 upon the numbers returned in the previous two weeks; 17 occurred in Glasgow, 5 in Edinburgh, 4 in Greenock, and 4 in Leith. The 28 fatal cases of measles also showed a further increase upon recent weekly numbers, and were all returned in Glasgow. The deaths from scarlet fever, however, which had been 17, 12, and 13 in the previous three weeks, declined to 7 last week, of which 3 occurred in Glasgow and 2 in Edinburgh. Four of the 5 deaths from diphtheria and 2 of the 4 from "fever" were returned in Edinburgh. The 6 deaths attributed to diarrhœa were less than half the number in the corresponding week of last year. The deaths referred to acute diseases of the respiratory organs in the eight towns, which had been 119 and 122 in the previous two weeks, further rose to 124 last week, and exceeded by 26 the number returned in the corresponding week of last year. The causes of 94, or nearly 16 per cent., of the deaths registered in the eight Scotch towns last week were not certified.

HEALTH OF DUBLIN.

The rate of mortality in Dublin, which had been equal to 30·3, 32·7, and 39·5 per 1000 in the preceding three weeks, declined to 34·6 in the week ending the 21st inst. During the first eleven weeks of the current quarter the death-rate in the city averaged no less than 33·5 per 1000, the mean rate during the same period not exceeding 21·5 in London and 20·4 in Edinburgh. The 234 deaths in Dublin last week showed a decline of 33 from the high number returned in the previous week, and included 16 which were referred to measles, 6 to whooping-cough, 3 to "fever" (typhus, enteric, or simple), 3 to diarrhœa, 2 to scarlet fever, and not one either to small-pox or diphtheria. These 30 deaths corresponded

with the number in the previous week, and were equal to an annual rate of 4·4 per 1000; the rate from these diseases last week in London and Edinburgh did not exceed 2·3 and 2·7 respectively. The fatal cases of measles, which had been 8, 10, and 11 in the previous three weeks, further rose to 16 last week, and exceeded the number in any previous week of this year. The 6 deaths from whooping-cough also showed a further increase upon recent weekly numbers. The deaths referred to scarlet fever, "fever," and diarrhœa showed, however, a decline. Six deaths from violence, but only 3 inquest cases, were registered within the city; and 67, or more than a quarter, of the deaths were recorded in public institutions. The deaths of elderly persons showed a marked decline from the number in the previous week. The causes of 24, or more than 10 per cent., of the deaths in the city last week were not certified.

THE SERVICES.

THE VOLUNTEER REVIEW.

IT will be interesting to follow the medical arrangements for the marching columns to Brighton on Good Friday, since the authorities at the Horse Guards and Whitehall-yard are anxious to complete them in the most perfect manner. It is proposed to carry them out in every detail as though the columns were acting during hostilities, an arrangement that never has as yet (except in one imperfect instance) been detailed in the regular army during the progress of any war. The present medical field service has of late been considerably improved, and this opportunity is taken to try its adaptability to the service. It is an honour to the Volunteer Medical Staff to be singled out as the pioneers in so important a matter, and we trust that the zeal of the Volunteer surgeons will afford every assistance to these endeavours of Government. One prominent feature in the day's details will be the first appearance of the bearer companies, whose services have just been accepted by Government, and which will be enrolled in time for the Review. These bearer companies, complete in every detail, will follow up the first aid given by the regimental surgeons and bearers to the wounded, who will be transferred in order to the rear, where they will pass into the hospital which accompanies the column. Of course to carry this out a number of men will be detailed as wounded, and these, with their tickets describing their wounds, will be attended at once by the regimental officers, who, passing on, will leave them in safety, to be taken up by the bearer companies. These bearer companies will number from 100 to 120 men, with the full complement of surgeons; and the hospital and brigades will be credited with their full staff. The details are being elaborated by Surgeon Cross, Grenadier Guards, who is well known in connexion with his late appointment at Aldershot as instructor to the Army Medical Staff; and under his efficient aid in the route as chief medical officer, we may expect to find success in the proposed scheme.

WAR OFFICE.—Army Medical Staff: The following Surgeons-Major to be Brigade Surgeons:—Austin Jonas Ferguson, vice William Skeen, M.D., promoted; John Robinson, vice Alfred Malpas Tippetts, promoted; St. John Killery, vice Rowland Wimburn Carter, granted retired pay; William Alexander Gardiner, vice Chamney Graves Irwin, M.B., promoted; George Scott Davie, M.D., vice William Cathcart Boyd, granted retired pay; Surgeon-Major Donald McEwen, M.B., retires from the service, receiving a gratuity; Surgeon Henry Brougham Guppy, M.B., has been placed on the retired list of his rank.

INDIA OFFICE.—The Queen has approved of the retirement from the service of the undermentioned officers of Her Majesty's India Military Forces:—Brigade Surgeon Robert William Cockerill, of the Madras Army. The undermentioned officers are granted a step of honorary rank on retirement:—Deputy Surgeon-General Colvin Smith, M.D., C.B., of the Madras Army, to be Surgeon-General; Brigade Surgeon Charles Kilkelly, of the Bengal Army, and Brigade Surgeon Robert William Cockerill, of the Madras Army, to be Deputy Surgeons-General; Surgeon-Major Thomas Gray Skardon, of the Bengal Army, and Surgeon-Major William Edward Allen, of the Bengal Army, to be Brigade Surgeons.

Surgeon-Major R. Boustead, Her Majesty's Indian Medical Staff, has been appointed Senior Surgeon 1st Divisional Field Hospital at the front with Her Majesty's Indian Forces in the Soudan.

Dr. A. Barry, of the 2nd Bombay Lancers, has been appointed to act as Surgeon to the Goculdas Tejpal Native General Hospital in Bombay, vice Dr. Vandyke Carter, on leave.

Surgeon-Major E. H. R. Langley, Indian Medical Service, Bombay, has been promoted to be Brigade Surgeon, vice Brigade Surgeon W. P. Partridge, retired.

Deputy Surgeon-General W. J. Moore, Indian Medical Service, Bombay, has been permitted by Her Majesty's Secretary of State for India to return to duty.

Brigade Surgeons John Jones and William Henry Kirton, Indian Medical Service, Bengal, have been permitted to retire from the service.

ADMIRALTY.—The following appointments have been made:—Fleet Surgeon William Graham, to the *Tamar;* Surgeon Arthur S. Nance, to the *Shannon;* Surgeon Henry J. Gordon, to the *Tamar;* Surgeon Alexander F. Harper, to the *Sea Lark;* Surgeon Edward B. Townsend, to the *Sea Flower;* Surgeon Edward W. von Thuzelmann, to the *Martin;* Surgeon George A. Dreaper, to the *Nautilus;* Surgeon William H. O. Meara, to the *Pilot;* Surgeon William W. Jacobs, to the *Liberty.*

MILITIA MEDICAL STAFF.—Surgeon-Major Richard Commander Kibbler, 7th Battalion, the Rifle Brigade (the Prince Consort's Own), resigns his commission, also is permitted to retain his rank, and to wear the prescribed uniform on his retirement; Surgeon William Sproule Love, 4th Battalion, the Royal Inniskillen Fusiliers, to be Surgeon-Major.

THE VOLUNTEER MEDICAL STAFF CORPS.—Acting Surgeon James Cantlie, M.A., M.B., from the 7th Middlesex (London Scottish) Rifle Volunteer Corps, to be Surgeon-Commandant; Surgeon John Lees Hall, A.M.D., to be Adjutant.

ARTILLERY VOLUNTEERS.—1st East Riding of Yorkshire: Surgeon Eleazar Sherwood, M.D., resigns his commission; also is permitted to retain his rank, and to continue to wear the uniform of the corps on his retirement.

RIFLE VOLUNTEERS.—2nd Lanarkshire: Surgeon William Crawford, M.D., resigns his commission.—1st Dumbartonshire: Lieutenant Robert Braid resigns his commission; Alexander Martin, Gent., M.B., to be Acting Surgeon.—2nd (South) Middlesex:—Stephen Henry Moore, Gent., to be Acting Surgeon.

Correspondence.

"Audi alteram partem."

THE UNIVERSITY OF LONDON.

To the Editor of THE LANCET.

SIR,—The long-felt discontent with the course pursued by the University of London has at length found expression, and the hitherto half-suppressed murmurs of dissatisfaction have now shaped themselves into active demands for change. It is far from my desire to interfere in so good a cause; nor do I propose to express an opinion as to whether the University has been the important factor in the improvement of general education as claimed by some of its supporters; or whether it is necessary or desirable that the general practitioner of medicine should possess a degree; or whether the present standard of the University should or should not be lowered, tempting as these and similar questions are to discuss. But I venture to ask for space to indicate a side of the question that, so far as I know, does not seem to have obtained the consideration it deserves, and neglect of which appears to me likely to lead to a waste of time and energy.

Beyond the very general feeling that something should be done to render the University of London more worthy of its name, there cannot be said to be very much agreement, and in the first steps of such an undertaking, when each one wishes to ride his own particular hobby, such diversity is not to be wondered at, and the remedies proposed are almost as varied as the grounds of complaint. After a good deal of preliminary skirmishing the attack upon the existing institution may be said to have taken two lines, and the schemes that are now in process of maturing, although widely

different from each other, have, as may be supposed, several points in common; and either would, if it succeeded, result in establishing a very different University from that we at present possess. The Association for Promoting a Teaching University for London, and the Council of the Metropolitan Counties Branch of the British Medical Association, alike desire to give a greater direct share in the control of the University to actual teachers engaged in instruction, and by associating the examination with teaching, would aim at rendering the degrees granted a better and truer evidence of education and real knowledge than the certificates of successful cramming, which they are very generally regarded as being at present.

The work that the Association for promoting a Teaching University for London has marked out for itself includes among other items the "entering into communication with the Senate and Convocation of the University of London, with the governing bodies of all other teaching institutions, with the authorities of the legal and medical professions, and other bodies." As this stupendous labour is assigned to a committee of thirteen gentlemen, most or all busily occupied by their professions, it is not reasonable to expect any result of their work for some time to come. To aid them in their communication with the University of London Convocation has appointed a committee of forty of its members, with power to confer with the Senate, in order to "promote the carrying into effect by the University of the object of the Association," which Convocation, at its meeting on the 24th ultimo, declared would "add to the importance and usefulness of the University."

The Council of the Metropolitan Counties Branch of the British Medical Association, dealing with a much smaller subject than the other body—viz., the wants only of medical students—have advanced considerably on the road, and having drawn up, discussed and accepted, a most exhaustive report, absolutely conclusive from its point of view, are now on their way to confer with the Senate in support of their objects, and, failing in obtaining the concession they desire, are prepared to take such steps as practically amount to establishing another degree-granting body—i.e., another university. No such alternative to the failure of their proposals is suggested by the committee of the other Association, who profess in their objects the utmost loyalty to existing institutions; although it would not seem very clear how far their respect for the present University would prevent the independent prosecution of their purpose should they fail in obtaining their object.

Now, are not these bodies, with their excellent aims, somewhat reckoning without their host? I would ask, Can the present University of London entertain the proposals of either of these suppliants? The neglect with which the tentative proposals in the direction of "conferring a substantive voice in the government of the University upon those engaged in the work of university teaching and examining" hitherto made by Convocation have been treated by the Senate, does not argue a very strong wish on their part to assent to any change, nor does it seem to me that the reverse could be expected, and it is more than probable that when the proposals reach that august body with the weight conferred by the distinguished individuals now approaching them they will be met by a simple *non possumus*. Reference to the charter of the University would seem to show that the course pursued by the Senate is quite in accordance with their constitution, and that it is not in their power to alter themselves in accordance with the wishes of the Association or of the other suitor, however much they might wish to do so. If, then, such changes as are desired can only be effected through the power from which the authority of the University emanates—viz., Parliament,—would it not be more reasonable and economical of time to petition Parliament to grant a Royal Commission to inquire into the working of the University? And this is the more justifiable to ask since the institution is heavily subsidised by the State. Supported by the names of those who are concerned in the various movements, it would be difficult for the Government to refuse the appeal, since it would be in no way casting a reflection upon those who have only too faithfully administered according to their charter, but would be merely an inquiry into the working of what is virtually a State institution, with an authority that no present association, however distinguished, could possibly pretend to, and with this further advantage, that their recommendation when formulated would be more likely to be carried out.

Nothing, to my mind, can be more fatal to the success of those who desire a change in the conduct of the University than to admit for a moment the possibility of another degree-granting power existing in London. To allow such an alternative to be suggested is to court defeat, and would strengthen those who are satisfied with matters as they stand, in their refusal to alter. If this be so, it only remains to bring the existing University into harmony with the desired aims, and this, I believe, can only be done by appeal to its masters.

I am, Sir, yours faithfully,

W. H. ALLCHIN, M.B.,
University Scholar in Medicine.

Chandos-street, W., March, 1885.

CHLOROFORM *v.* ETHER.

To the Editor of THE LANCET.

SIR,—In a communication in your issue of the 7th inst. Mr. George Walker of Liverpool narrates a case of recovery from chloroform narcosis, and institutes a comparison between chloroform and ether, which is to the prejudice of the latter agent. Mr. Woodhouse Braine has taken exception to the statement of Mr. Walker, and warns the profession against the use of chloroform. It appears to me the question is of such great importance that, so far from an apology being needed for those who desire its thorough ventilation, it is a manifest duty for experts to lay all the knowledge and experience they possess before the profession. All who are conversant with the working of our London hospitals know that, as a rule, the majority of students receive no regular instruction in the practice of anæsthetising, and hence few men know the risks they run in private practice when called upon to administer anæsthetics. It is, then, certainly of the last importance that every means be adopted whereby the busy practitioner be kept well abreast of the times in the scientific knowledge of anæsthesia. It is far more common for men in general practice, and especially country practice, to employ chloroform rather than ether. They do so because the apparatus is far simpler, resolving itself into a bottle of the anæsthetic and a towel. In adopting this method but few practitioners contemplate that they are placing the lives of their patients in jeopardy. Again, patients themselves infinitely prefer chloroform. In London, where we habitually induce unconsciousness with nitrous oxide before administering ether, we hear little of the strong distaste patients declare for ether. In the country *tout cela est changé*. There is also a further claim which chloroform has upon the laity. It is the familiar agent to them, and being familiar lacks the awe which the uncanny name of ether provokes. All these reasons tend to induce a far more frequent resort being had to chloroform than to ether, while still another cause leads to the same end. To administer chloroform with apparent success is certainly more easy than to induce narcosis by ether. In the hands of a master of the art like Mr. Braine, the etherisation of a patient becomes to outward semblance a matter of superlative ease; to the tyro it presents pitfalls in practice, and symptoms which, to his 'prentice eyes, assume a truly portentous gravity. The question yet remains, Which agent should be recommended for universal use? Mr. Braine says ether, because (1) mortality from its use is lower than from the use of chloroform; (2) the fatality from ether narcosis is more gradual in development, and so admits of more successful treatment. While most persons conversant with the subject would agree with Mr. Braine, they would possibly suggest that he has not considered the question from every side, and that some of his statements need limitation. It will take a great many arguments to induce a man to relinquish chloroform if he finds that agent more handy, and if he is unfamiliar with the use of ether; yet I agree with Mr. Braine that the choice should, practically, in every case fall upon ether. I would, however, add this, that until ether administration is clearly and systematically taught, I believe its use will never be general, nor its benefits appreciated. I also submit that, as Mr. Braine writes, "dangerous symptoms occasionally arise during the administration of ether," and such symptoms need a far more thorough scrutiny than has as yet been accorded to them. It further must be said, no administrator of ether should lay the flattering unction to his soul that untoward symptoms appear only gradually or recede as soon as the ether inhalation is stopped. The very method which Mr. Braine appears to advocate—the rapid induction of ether narcosis—lends itself to adverse criticism on this score.

If my memory serves me, Mr. Braine, in a paper read before the Medical Society of London, advocated the employment of Ormsby's inhaler. This instrument is open to the objection that it allows a saturated atmosphere of ether to impinge suddenly upon the delicate and sensitive mucous membrane of the larynx and respiratory tract in general, often giving rise to most alarming dyspnœa from spasm of the glottis. This, then, is one of the many dangers to which ether narcosis is liable, and I think it is matter of moment that, while we warn the unwary against the reckless use of chloroform, we should not clothe ether with virtues which its use will speedily repudiate. When nitrous oxide cannot be used, I think—and the annals of many years of severe testing in University College Hospital bear out my contention—that none of the methods of etherisation can approach that instituted by Mr. Clover, a method alike sound in its scientific basis and convenient for its pre-eminent practicability. Were it competent in this place to consider the question of statistics, it would be my duty to cast some doubt upon the value of such as indicating the relative merits of the two agents, since at present no attempt has been made to arrive at any really accurate return of the number of times ether and chloroform are respectively employed, and of the cases in which death supervenes. Many such cases are not returned at Somerset House as "death from chloroform poisoning." Again, surely "vomiting, nausea, and depression of spirits" are not in many cases trifling ailments. It must occur to all anæsthetists to find persons who evince a peculiar obnoxiousness to ether, and in these many surgical operations could not be performed were ether employed to produce unconsciousness. Nor, again, can straining, sickness, and hiccough, which will every now and again appear, be compatible with the well-being in the post-operation stage of such cases as gastrostomies, &c. Mr. Braine confines himself within such narrow limits that it is impossible for him to do more than offer a very casual glance at the physiological side of the question, and hence it is that his statements, although strictly accurate, yet do not quite cover the whole ground. I may further emphasise the warning given by Mr. Braine by quoting the words of Schiff, the value of whose opinion on this matter can hardly be over-estimated. He says: "Chloroform should be banished from practice as an anæsthetic agent, except in cases in which an extraordinary resistance to the action of ether shows itself."

In conclusion, I would submit that it seems to my mind very doubtful if Mr. Walker is quite accurate in attributing to nitrite of amyl the recovery of his terrier. He employed artificial respiration coëtaneously with the nitrite, and my experience of dogs narcotised with chloroform, which is rather wide, has taught me that artificial respiration, if persevered in for a sufficiently long time, will, in nearly every case, succeed, and if it fails, nitrite fails also. At the same time, as many careful observers have recorded cases which they believe derived benefit from nitrite inhalation, it is unquestionably our duty to try it in every case. The search for amyl nitrite should never, however, be allowed to distract the administrator's attention from performing artificial respiration, which is *the* thing most needful.

I am, Sir, your obedient servant,

DUDLEY W. BUXTON, M.D., B.S.,
Administrator of Anæsthetics in University College Hospital and at the Hospital for Women, Soho-square.

Mortimer-street, Cavendish-square, W., March, 1885.

ELECTRIC ILLUMINATION OF VARIOUS CAVITIES OF THE HUMAN BODY.

To the Editor of THE LANCET.

SIR,—Allow me to complete the information given in my paper on the above subject, and published in your numbers of the 14th and 21st inst., by the statement that incandescent lamps are now manufactured of the same size as those described in my paper, but of a power of eight volts. By using two accumulators coupled together in connexion with these lamps, an illuminating power is obtained which rivals in brilliancy the hydro-oxygen light. [The coupling of the accumulators is effected by connecting the positive pole of the one with the negative pole of the other by means of a small piece of copper wire. The wires connected with the handle of the instrument are then attached to the free poles.] Messrs. Weiss and Son will soon receive a supply of these lamps.

As several letters dealing with the question of warming the laryngoscopic mirror have been recently published in your columns, I wish to state once more distinctly, that the mirror of the electric laryngoscope can be warmed in exactly the same manner as the common laryngoscope—i.e., by holding it over a gas, oil, or spirit lamp, or by dipping it into warm water, *after* it has been attached to the universal handle. No danger of the incandescent lamp cracking or of other accidents happening is to be apprehended.

I am, Sir, yours obediently,

FELIX SEMON.

Welbeck-street, Cavendish-square, W., March 22nd, 1885.

LEACH AND ROOKE MEMORIAL FUND.

To the Editor of THE LANCET.

SIR,—A proposal has of late been made to collect a fund for putting up in our new chapel a window to the memory of Mr. Harry Leach and Dr. Henry Rooke, who were both for many years connected as medical officers with this institution. On behalf of a committee formed by our physicians and surgeons, I beg to bring this project under your notice, and to suggest that we would be pleased to receive any kind help in our endeavour to keep up the memory of these former members of our medical staff, who, during their long association with the Seamen's Hospital, were so widely esteemed.

I am, Sir, yours truly,

W. JOHNSON SMITH.

Seamen's Hospital, Greenwich, March, 1885.

The following subscriptions have been received or promised in furtherance of the fund:—

	£	s.	d.
Dr. Robert Barnes, Consulting Physician, Seamen's Hospital	2	2	0
G. Busk, Esq., Consulting Surgeon	2	2	0
Dr. John Curnow, Visiting Physician	1	1	0
Dr. Robert Carrington, Visiting Physician ...	1	1	0
G. R. Turner, Esq., Visiting Surgeon	1	1	0
Dr. Robert Farquharson, M.P.	1	1	0
W. Johnson Smith, Esq....	2	2	0
John Croft, Esq....	2	2	0
Gay Shute, Esq....	2	2	0
Dr. Collingridge	2	2	0
W. M. Corner, Esq.	1	1	0
John Tweedy, Esq.	1	1	0
Dr. Ralph Gooding	1	1	0
Dr. William Walker... ...	1	1	0
THE LANCET	2	2	0

MEMORIAL TO DR. FAIRLIE CLARKE.

To the Editor of THE LANCET.

SIR,—Some of the friends of the late Dr. Fairlie Clarke, desirous of evincing their esteem for him, and wishing to perpetuate his memory in some practical manner, have undertaken to erect a drinking fountain in Southborough, where he spent the last eight years of his life. They have come to this decision because among his papers were found plans for a drinking fountain, with the view to the erection of one in this town, and because they feel sure that, to all who knew him, it will commend itself as a suitable memorial. At present donations amounting to £80 have been promised, and if any of your readers would like to subscribe to this fund, subscriptions will gladly be received by the Rev. H. J. Bigsby, Rev. T. A. E. Williamson, General Rowlatt (all of Southborough, Tunbridge Wells), or

Yours faithfully,

H. VERE PEARSON, Treasurer.

Park-road, Southborough, Tunbridge Wells, March 21st, 1885.

LIVERPOOL.

(*From our own Correspondent.*)

THE NEW LYING-IN HOSPITAL.

FOR upwards of forty years there has been in Liverpool a lying-in hospital, and for nearly a century a maternity charity for attending poor married women at their own homes, this latter being known as the Ladies' Charity Each has had its supporters and advocates, while the former has also had its opponents. The new hospital is an honest, and so far a very successful, attempt to give the patients all the benefits of a lying-in hospital without any of its dangers. It consists of two detached cottage hospitals, situated respectively east and west of the central building,

which comprises the rooms for the administrative staff, board-room, kitchen, offices for registration of patients, &c. Each wing is approached from the central building by iron galleries on the ground and first floors, the hospital proper consisting of only two floors. On each floor are three lying-in rooms, each with a single bed and the nurse's room. The whole are so arranged that the nurse can see all the three patients from her room without leaving it. All the sanitary arrangements are admirable, as are also those for securing the thorough cleansing and disinfection of each room after every confinement. Every precaution has been taken to prevent the possibility of contagion. At present patients are admitted without regard as to whether the confinement is expected to be normal or otherwise; but it is probable that the twelve beds will in time be fully required for difficult or complicated labours.

UNIVERSITY COLLEGE.

Dr. Ewing Whittle has resigned the lectureship of forensic medicine and hygiene, which he has held for upwards of twenty years. Among other candidates for the vacancy are Mr. Frank Thomas Paul, Surgical Tutor, late Pathologist and Demonstrator of Physiology; and Dr. James Barr, Visiting Surgeon, H. M. Prison, Kirkdale.

JUVENILE DRUNKARDS.

A boy fourteen years of age was admitted into the Royal Southern Hospital in the afternoon of Sunday, the 15th inst., in an insensible condition. He had been found by the policeman on duty lying in a gutter. Dr. Gordon, the house-surgeon, found him in a state of collapse from alcoholic drinks, and applied the stomach-pump; but it was some time before he was completely restored. It subsequently transpired that the boy reached home late on Saturday night in a state of intoxication, and having slept this off consumed two pints of beer and two glasses of whisky between three and five o'clock on Sunday afternoon. Disgusting though this is, it is only an aggravated example of what is sadly too common in this city in the young of both sexes.

MANCHESTER.

(From our own Correspondent.)

ST. MARY'S HOSPITAL FOR WOMEN AND CHILDREN.

At the annual meeting of St. Mary's Hospital for Women and Children the cry so common from our medical charities was again heard—expenditure was outrunning income. The charity certainly has special claims, being the only one with a maternity department in the city and neighbourhood, the patients in which during the past twelve months numbered 3045. The cases admitted into the wards were 544, while the total patients under treatment were 14,192. The chairman, Mr. Duncan Matheson, who succeeds the late Canon Bentley, who for so many years was an earnest supporter of the hospital, alluded to the necessity of steps being taken at the earliest possible opportunity to reconstruct or build a new hospital, but the committee were loth to take any further steps in the matter until they could see their way clear to obtaining the funds required for that purpose. It was decided to bring more prominently before the public of Manchester and the surrounding district the work and needs of this particular hospital.

WITHINGTON HOSPITAL.

To the hospital belonging to the Chorlton guardians at Withington additions are shortly to be made, owing to the crowded state of the wards; it was recently stated by one of the members of the Board (a medical man) that it was not safe to perform any serious surgical operation there on account of the overcrowded state of the hospital.

A NEW HOSPITAL FOR INFECTIOUS DISEASES.

At the Crumpsall Workhouse, belonging to the Manchester guardians, plans have been passed for a new hospital for the treatment of infectious diseases, to be erected at a cost of £2400. Hitherto the guardians have sent most of their infectious cases for treatment to the Monsall Fever Hospital. It is certain that, in the event of any serious epidemic in the city, the cases coming under the charge of the guardians could never all be treated and the diseases properly separated the one from the other with the hospital accommodation that can be provided for the above sum.

THREATENED OUTBREAK OF SMALL-POX IN MANCHESTER.

At present we are threatened with an outbreak of small-pox; three deaths were reported last week, a larger number than has occurred for many months; and there are at the present time more cases under treatment than there have been for a considerable time. Scarlet fever, which has been so prevalent for the past eighteen months, appears now to be subsiding; and at the last meeting of the Salford Town Council honorariums were voted for the resident medical officer and matron of the Fever Hospital, of £20 and £10 respectively for the increased work and responsibility thrown upon them during that time.

A NEW PATHOLOGICAL SOCIETY.

A new Pathological Society is about to be formed, which has developed out of the Microscopical Section of the Medical Society. The Microscopical Section was formed some few years ago; but the members have lately felt that its scope of work might be very materially enlarged by adding to it the exhibition and description of pathological specimens—the more so as at the Medical Society's meetings there is always an abundance of contributions of a more strictly clinical character. The founders are actuated by no spirit of opposition or antagonism to the parent Society, but simply desire to work more particularly in a field which they think is neglected, or for which there is not sufficient time and opportunity at the meetings of the Medical Society.

A NEW MEDICAL SOCIETY.

There is a rumour of a new Medical Society being formed by several members of the profession, who object to the meetings and reading rooms, &c., being all located at Owens College, and who have urged the desirability of some more central position. Nothing very definite has, however, yet transpired with regard to this project.

NORTH-WESTERN ASSOCIATION OF MEDICAL OFFICERS OF HEALTH.

At the annual meeting of this Association, Dr. Hime of Bradford was elected president for the coming year. The Society has steadily increased in numbers and influence since its formation some nine years ago, and has had before it for discussion during the past year many subjects of interest and importance from a sanitary point of view. Two subjects which might profitably engage attention, and which are at present before the notice of the public here, are: the pollution of rivers, a Bill respecting which is again before Parliament, and is also a subject at present occupying the attention of the Corporation; and the ship canal scheme from this city to Liverpool, which will require some careful watching in order that provision shall be duly made to prevent the docks, &c., in connexion therewith degenerating into vast cesspools.

PARIS.

(From our Paris Correspondent.)

PROFESSOR BROWN-SÉQUARD ON COCAINE.

At the last meeting of the Société de Biologie, Professor Brown-Séquard read a note on the local analgetic action of cocaine, which he looked upon as a new example of inhibitory action. Experiments performed by the author proved that cocaine acted through the medium of the peripheric nerves on the nervous centres, which react in producing an inhibition of sensibility. The phenomena which result from the injection of a certain quantity of cocaine at the level of the larynx are absolutely the same as those which are consecutive to the application of a jet of carbonic acid on the mucous membrane of the larynx. Two minutes after this injection there is a generalised anæsthesia and an analgesia of the different wounds made on the body of the animal. The cutaneous anæsthesia lasts only a few minutes, but the analgesia of the wounds persists even till the following day. If fresh wounds are made, these, far from being analgetic, become, on the contrary, hyperalgetic. That which proves that cocaine acts on the nervous centres, and particularly on the cerebellum, is that the injections of this substance produce sometimes a rolling motion to the side opposite to the injection, and at others a turning motion. Evidence of the inhibitory action may be obtained by another experiment; when the dose

of cocaine injected has been large enough to produce convulsions, it is sufficient to pull or forcibly flex the toes to immediately stop the convulsions. In animals which die under these conditions the author found the temperature of the body after death as high as 44·4° C., or 111·6° F.

THE ADJUNCTION OF CHLOROFORM AND COCAINE.

Dr. Ferrier lately read a report before the Surgical Society of Paris on a work by Dr. Dransart, who proposed the adjunction of chloroform to cocaine for operations on the eye. The chloroform is administered in the usual way after an instillation of cocaine, and the time taken up to administer the former is thus reduced to one or two minutes. The advantages claimed for this method are that the deeper tissues of the eye, such as the iris, muscles, optic nerve, &c., may be cut into without causing pain, which would not be the case with the instillation of cocaine alone. The duration of chloroformisation being considerably reduced, the dangers attending the administration of chloroform are *pro tanto* diminished.

VASELINE IN PASTRY.

At a recent meeting of the Council of Hygiene and of Salubrity of the Department of the Seine, M. Alfred Riche read a report concerning the employment of vaseline in pastry as a substitute for grease or butter. The reporter stated, in the name of the commission charged to investigate the matter, that however advantageous the use of vaseline may be to vendors of pastry, inasmuch as it prevents the latter from becoming rancid, it is nevertheless, used for that purpose, injurious to health. Moreover, as vaseline does not possess the nutritive qualities of fat or butter, and as the action of the derivatives of petroleum on the economy, particularly on the digestive apparatus, is as yet but little understood, the council have recommended the interdiction of the employment of vaseline for alimentary purposes.

Paris, March 24th.

NEW YORK.

(From a Correspondent.)

So many contradictory statements have been made regarding the nature of the disease with which the veteran General Grant, ex-President of the United States, is afflicted, that I thought your readers would like some authentic report on the subject. For this purpose I visited Dr. George R. Elliott, of 105, Madison-avenue, who has made microscopic preparations of the morbid growths removed from General Grant's throat and examined them at his leisure. The following is his report written for THE LANCET at my request:—

"The disease is not extensive, the ulcerations being limited to the right pillars of the fauces, the anterior one being perforated near its base. The adjoining side of the tongue is but slightly indurated, as is also a neighbouring gland. The case being somewhat unique in its development and progress, a microscopical examination of a small portion of the growth was deemed advisable as an aid in arriving at an exact diagnosis. General Grant readily consented to the removal of a piece for this purpose, and a portion about the size of a pea was taken from the ulcerated edge by Dr. F. C. Riley at the request of Dr. J. H. Douglas. This specimen was rapidly hardened in alcohol, and at the end of thirty-six hours sections were made, stained and mounted for examination. The following histological findings were readily made out:—The structure is largely composed of epithelial tissue, which in places appears in the form of distinct lobules. In portions of these lobules the cells are grouped into concentric globes or cell-nests. The individual epithelial elements present great multiformity in shape, and lie in close contact with each other. Marked evidence of cell proliferation is seen in the deeper layers of the specimen. There is a more or less complete stroma or framework running through portions of the growth, composed of fibrous tissue rich in small round cells. By way of summary, thus: the more or less lobulated appearance of the epithelial mass, the grouping of the epithelial elements into concentric globes, the great diversity in the shape of the cell elements, the evidence of cell proliferation and the peculiar arrangement of the stroma, would warrant a diagnosis of epithelioma of the squamous variety. The specimen was removed on February 18th, 1885, and the report submitted on February 23rd. The diagnosis was arrived at only after the greatest possible care had been taken to exclude all sources of error, with a full knowledge of the clinical history and with a mind anxious to find only the microscopical evidence of a benign or innocent growth. After rendering the report the specimens were shown to Dr. T. E. Satterthwaite, the well-known pathologist, who fully confirmed the diagnosis. Upon request they were also exhibited to the eminent gentlemen of the consulting staff—viz., Drs. Fordyce Barker, H. B. Sands, J. H. Douglas, and G. F. Shrady."

With this detailed report you will, doubtless, be in a position to draw your own conclusions as to General Grant's condition. My own impression is, after a careful examination of the microscopical preparations and consultation with Dr. Elliott, that there is nothing in the nature of the disease that is likely to kill General Grant at an early date, although the failure of his general health may precipitate a crisis at any time. Stimulants do not act kindly, and cocoa only has been administered with success. Still, if the general tone of his system could be maintained, his naturally strong constitution may enable him to combat the ravages of the disease for some time. If an early fatal termination of the case should happen, it will probably be due to the invasion of his sick room by some half-dozen physicians, and reading the exaggerated reports which are daily printed in the public press.

VIENNA.

(From our own Correspondent.)

SMALL-POX IN VIENNA.

SPORADIC cases of small-pox have occurred in Vienna every week for years, but during the last few weeks a progressive increase of such cases has been noticed. While their number amounted formerly to from 10 to 15 weekly, 13, 14, 30, 46, 43, 46, 41, 59, 64, and 96 cases have been reported in each respective week of the present year. In the western suburbs of the city the cases of small-pox have become so numerous (the latest return being 108) that several schools have had to be closed. It is noteworthy that the disease has attacked unvaccinated individuals for the most part, and that the deaths occurred exclusively in that class, and in the aged, on whom the effect of vaccination may have disappeared. In Vienna only 16 cases proved fatal during last week.

A CASE OF AGRAPHIA WITHOUT APHASIA.

It has been contended that agraphia without aphasia is possible, and the following case, which occurred on the 10th inst. in the clinique of Professor Rosenthal at the Vienna Allgemeines Krankenhaus, may contribute to the solution of the question. A widow, aged forty-five, who, as she stated, had never been ill before, was attacked about three weeks ago with hemiplegia of the right side, which slowly improved. Paraphasia seemed to have supervened, the patient confounding the less common words. Eight days ago the patient, who formerly maintained a lively correspondence, perceived that she was unable to read and to comprehend words, although she could, with some difficulty, spell the letters; nor was she able to write words, while she could quickly write as well as read figures and numbers. Without effort she can read special words—for instance, her name, Anna, and that of her late husband, Johann, even if these names are written badly and in small characters. Examination with the ophthalmoscope showed only a considerable hypermetropia and a right hemianopia.

ADDISON'S DISEASE.

The typical example of this disease is composed, as is well known, of three chief groups of symptoms:—(1) Anæmia and asthenia; (2) dark discolouration of the skin; and (3) disorder of the digestive apparatus. Professor Nothnagel considers the second symptom as the first in importance, the asthenia occupying the second place, while he regards the anæmia as of much less moment. According to numerous histological researches the discolouration is caused by an intense pigmentation of the deepest layers of the rete Malpighii. Several years ago

Dr. Ehrmann of Vienna proved that in the amphibia the pigment does not originate in the epidermis cells, but in those of the cutis; he and Dr. Riehl stated also that the hair derives its pigment from the cutis. Virchow, too, some years ago found in cases of Addison's disease pigment cells not only in the deepest layers of the rete Malpighii, but also in the uppermost layers of the cutis—namely, along the nerves and vessels. Nothnagel likewise observed numerous pigmented cells in the uppermost layers of the corium of the skin of negroes. From these facts he concludes that the pigment does not originate in the deepest layers of the rete Malpighii, but is carried into the epidermis by the pigment cells. According to his views the pigment owes its origin to the blood, from which it issues already dissolved, a process which resembles the pigmentation noticed by a French observer in connexion with the spawn of frogs. Like the majority of inquirers, Professor Nothnagel supposes that it is probably due to an affection of the large nervous apparatus of the sympathetic. Also in cases of other diseases a pathological pigmentation is caused by affections of the retro-peritoneal region. Contrary to the statements of Jürgensen, in the last observed case of Addison's disease the medullary, as well as the non-medullary, fibres of the splanchnics were unaltered. The patient died, as usual, comatose. In the urine much acetone was found. Nothnagel expressed an opinion that the coma is probably caused by acetonuria, and not exclusively by anæmia of the brain.

SWALLOWING ARTIFICIAL TEETH.

Two cases of the above nature have lately been treated in the wards of Professor Billroth. A woman, living near Vienna, swallowed during the night of January 28th an artificial set of teeth, which she omitted to remove from her mouth before retiring to rest. All endeavours to extract the plate from the œsophagus, where it lodged, failed until she came under the care of Professor Billroth, who removed the foreign body by œsophagotomy. Symptoms of commencing gangrene of the œsophagus appeared, and a fatal result was feared. A part of the operation wound had been left open for the insertion of a drainage-tube as far as the stomach, and the entire wound covered with iodoform gauze. After a lapse of eight days the drainage-tube was removed, and in another week the wound had closed. The patient is now perfectly well; stricture did not occur. The second case was that of a girl aged nineteen, who swallowed a set of teeth during the night of Feb. 14th. All endeavours to extract the plate were vain. On admission to hospital the foreign body could distinctly be felt in the œsophagus. On the following morning the largest sound could easily be introduced, and Prof. Billroth decided to perform gastrotomy about three centimetres below the edge of the ribs on the left side. Through an incision in the stomach he tried ineffectually to reach the foreign body with the finger; he then drew out almost the whole of the stomach, but without discovering the object of his search. Although it was improbable that the plate had passed the pylorus, he enlarged the wound in the abdomen and explored the abdomen with his hand, but again without success. Only that part of the stomach remained to be searched which is fixed to the spleen. Here Professor Billroth, introducing his other hand, found the body lying flat against the wall. The stomach was sewn up, put back, and the wound in the abdomen was likewise closed. The patient is already able to take liquid nourishment.

Vienna, March 19th.

MEDICAL NOTES IN PARLIAMENT.

The Poisons Bill.

IN the House of Lords on the 22nd inst., the Earl of Milltown gave notice that on the motion to go into Committee on the Poisons Bill he will move that it be referred to a Select Committee.

The Lunacy Bill.

On the 26th inst., the Lord Chancellor, in presenting a Bill to Amend the Lunacy Laws, said there were two classes of lunatics—Chancery lunatics and those confined in different places of care throughout the country. Chancery lunatics were comparatively few in number, not exceeding 3000 or 4000 cases, and it was not proposed to alter to any considerable degree this branch of the law, except that on one or two points some extension of the powers of the Court of Chancery was suggested. He might here point out that it would be a very desirable thing to consolidate the various Acts which deal with lunacy, and a Bill was actually prepared with that object, but it was deemed advisable to postpone its introduction until it was seen what change would be effected by the measure he was now bringing before their lordships. Premising that it was an honest and carefully considered attempt to deal with the subject, he admitted that there were points in it on which considerable differences of opinion existed, and on one very important provision he regretted that the proposition he had to recommend to the acceptance of the House was opposed by Lord Shaftesbury and his colleagues on the Lunacy Commission. The Bill did not deal with the administrative establishments, either of Chancery or the Lunacy Commissioners, which had worked well and proved satisfactory. He did not say that some change might not be necessary in them, but as they formed a collateral branch of the subject it was not necessary to encumber the measure with any clauses dealing with them. As the law at present stood with regard to the initial steps for a commitment in lunacy, it was possible that an opinion might be obtained, perfectly honestly, from two medical gentlemen, who had to sign the certificate, upon insufficient grounds and not of that absolutely impartial and disinterested character which was desirable. It might be that abuses had taken place in that way. In Scotland a person could not be confined as a lunatic on the authority of a private individual. The practice was to present a petition to the sheriff, accompanied by a statement of the particulars of the case, supported by the certificates of two medical practitioners, on the strength of which an order could be made for the reception of the lunatic into an asylum. If the sheriff was not satisfied with the certificates he could make independent inquiry. The Scotch law also provided means for dealing with cases of urgency without delay, and similar provisions existed in the legal system of most civilised countries. The committee of 1877 reported against the introduction of like powers into the law of England; but although Lord Shaftesbury was still adverse to the principle, those who were responsible for the present measure had been induced to recommend its adoption, attended by precautions to prevent its unguarded application. As to cases of the ordinary character, it was proposed that no person, not a pauper or found lunatic by inquisition, should be detained in an asylum, hospital, or licensed house without an order under the hand of a county court judge, a stipendiary magistrate, or a justice of the peace possessing the necessary jurisdiction. The petition was to be supported by the certificates of two medical men, one of whom must, if possible, be the ordinary medical attendant of the patient. No advantage would be gained by requiring a statutory declaration from the medical man, and there would be the disadvantage of multiplying the applications to magistrates; but if the certificate contained any material statement that was false to the knowledge of the medical man, he would be subject to the same penalties as in the case of a statutory declaration or statement on oath. If the magistrate was satisfied with the evidence of the lunacy contained in the medical certificate, he would be empowered to at once make the order; but if he was not satisfied, he could direct a further investigation. That inquiry would be conducted in private, and those necessarily present would be bound to secrecy, unless required by lawful authority to divulge what had transpired. If the magistrate thought it desirable to dismiss the petition, he must give his reasons in writing for doing so. It would thus be perceived that the framers of the measure had been most anxious to prevent the evils anticipated by those who objected to the introduction of a magistrate. Not only had better securities been provided with regard to initial steps in cases of lunacy, but it was proposed that every order should be limited in its duration to three years, unless at the end of that period the proper medical authorities certified that the patient ought to be detained, in which case the order might be renewed from year to year. Among the other provisions of the Bill, there was one giving to the Crown generally a power which it did not at present possess—to initiate prosecutions in all offences against the Lunacy Laws. Power, too, was given, where it should appear that a lunatic could manage his person but not his property, for the appointment of a committee to manage his estate and suspend interference with his person. The important part of the Bill was that relating to licensed houses or asylums. A great objection had been frequently made to such houses, on the ground that it was inexpedient that any person should have a pecuniary interest in the

continued detention of an insane person. The subject was undoubtedly one of great importance, and also of great difficulty. It was therefore proposed to give greater facilities for extending the asylums system, so that it might by degrees be adopted for the general reception of private and non-pauper patients. The county and borough justices would be given the power to provide separate treatment for particular classes of patients, and in addition it was proposed that the Home Secretary should have in respect of private patients the same powers he now enjoyed as to pauper lunatics. It was hoped, therefore, that the system of public asylums would become in a natural way a substitute for these licensed houses. At the present time, and looking to the great number of patients in licensed houses, their sudden absorption did not seem wise or desirable. There were provisions in the Bill for the compulsory purchase of licensed houses upon terms to be fixed by the Act, the amount to be ascertained by a jury or by arbitration; but to suppress these houses, on which a large outlay had been made, and to do it suddenly, without having in the meantime made adequate provision for the large number of lunatics to be dealt with, was a step which could not be recommended. No new licences, however, would be granted after the passing of the Act without the consent of the Secretary of State.

The Bill was then read a first time.

The Condition of the Thames.

In the House of Commons, on the 19th inst., in reply to Mr. Labouchere, who asked the Secretary of State for the Home Department whether any action was contemplated in view of the deputation from the Local Board of Twickenham, which recently waited upon him to call attention to the condition of the Thames between Richmond and Isleworth, Mr. Fowler stated that there was some conflict as to whom the authority for the work lay upon. Some contended it was the Metropolitan Board of Works who were responsible for sewage works, and others that it was the Thames Conservancy Board who had jurisdiction over the work of removing the mud. No time, however, would be lost to remedy the present state of things, which was a disgrace to the Thames.

The Reception of Insane Persons into Workhouses.

Mr. J. Talbot asked the Secretary of State for the Home Department whether his attention had been called to a report of a case at the Westminster Police-court, according to which an alleged lunatic was refused admission to the workhouse, "a course which was adopted, it was stated, in consequence of a recent legal decision." Sir W. Harcourt replied that in his opinion the man ought to have been admitted to the workhouse. Nothing could be more undesirable than that an alleged lunatic should be sent to prison. He was much surprised at the alleged decision, although there was doubtless some obscurity in the law. The fact was that the guardians would not admit, not that they could not.

On the 24th inst. Mr. G. Russell, replying to Lord Algernon Percy, said that the Guardians of the Westminster Union have called the attention of the Board to the decision of Mr. Justice Wills in the Marylebone case. It appears that in that case a woman, who was not a pauper, and who was alleged not to be under proper care and control, was by stratagem removed to the workhouse, and was detained there against her will for a period of fourteen days, and that the requirements of the statute were altogether ignored. The publicity which has been given to the decision in this case will be a warning to the officers of other unions if there should be any disposition to adopt a similar course. It does not at present appear to the Board to be necessary to issue a circular letter on the subject, neither would they be prepared to propose legislation for legalising action such as that in the case in question.

Small-pox in Egypt.

On the 23rd inst., the Marquis of Hartington, in reply to Mr. Hopwood, said that since the first arrival of the British Army in Egypt up to the latest returns, eighty-one cases of small-pox had occurred amongst the troops, including those on the Nile and at Suakim. Of that number seven had proved fatal. The regulations as to revaccination had been satisfactorily carried out.

Public Health Act.

On the 25th inst., a new Bill by Sir J. Kennaway to amend the Public Health Act, 1875, with respect to members and officers of local authorities was, by leave, brought in and read a first time.

Obituary.

CHARLES PALMERSTON TURNER.

THE announcement of the death of Surgeon Turner, which appeared in our issue of March 15th, will have been read with sorrow and regret by many members of the Medical Staff Corps, as well as by a large circle of friends.

Surgeon Turner entered the army in 1874, and had seen a great deal of service. Three years after he entered the service he took part in the expedition against the Gowaki Afreedees with the 51st Light Infantry; he was also employed in the Afghan war of 1878-79, and was present at the assault upon Ali Musjid, being mentioned in despatches. In the Egyptian war of 1882 he was at the battle of Tel-el-Kebir, and in 1884 he was present at the battles of El-Teb and Tamai, in the former of which he was slightly wounded. He received the various medals awarded for these expeditions, and, in addition, the Egyptian Bronze Star. Surgeon Turner was among the first who were ordered to Egypt on the outbreak of cholera. In the early autumn of last year he returned to England on six weeks' private leave; but before his leave had expired he was ordered back to take part in the Nile expedition for the relief of Gordon, when he was attached to the 19th Hussars. He was present at the battles of Abu Klea and El-Gubat, and was with General Buller's force in his retreat across the desert. He was brought into camp at Korti by a party of Hussars on March 5th, and died of enteric fever on the following day. His professional efficiency, his happy indifference to privation and hardship, his unselfish character, his frank and open countenance and mode of conversation caused him to be respected by all, and much beloved and esteemed by those who were more closely associated with him. Though much pressed for time when he was preparing for his departure to take part in the Nile expedition, one of his last acts before leaving was to visit one of the military hospitals to see a patient who had expressed an earnest wish to see him, and upon whom he had performed double amputation after the battle of El-Teb. He leaves behind him, besides many sorrowing friends, two sisters and an aged mother, his tender consideration for whom was only one among the many charming points in his character. Truly this unhappy struggle is costing England the lives of some of the best and bravest of her children.

Medical News.

COLLEGE OF PHYSICIANS IN IRELAND.—At the examinations held this month the following obtained the licences in Medicine and Midwifery of the College:—

MEDICINE.—George Brown, George Fletcher Collins, John Hobbs, George St. John Oldham, Robert John Langford Rowley.

MIDWIFERY.—Anthony Lawrence Blake, George Brown, Geo. Fletcher Collins, John Hobbs, George St. John Oldham, Robert John Langford Rowley.

ROYAL COLLEGE OF SURGEONS IN IRELAND.—At an examination held on March 9th and 10th the undermentioned Licentiate was admitted a Fellow of the College:—

David Edgar Flinn.

THE Library of the Royal Medical and Chirurgical Society will be closed from Good Friday to Easter Monday, both days inclusive.

UNIVERSITY OF CAMBRIDGE.—At a congregation held on the 19th inst., the degree of Bachelor of Medicine was conferred on Charles Slater, St. John's.

MR. RICHARD BENYON, of Englefield House, near Reading, has just given £1000 to the funds of the Royal Berkshire Hospital, of which he is President.

A WELL-ATTENDED public meeting, called by the National Society for Securing Effective Legislation against River Pollution, was held on 25th inst. at the Mansion House.

ITALIAN UNIVERSITY DISTURBANCES.—The students of Rome, Bologna, Pavia, Pisa, and Naples have passed resolutions refusing to attend any lectures until amends have been made by the Ministry to the Turin students who were attacked by the police on the occasion of a recent demonstration, some bloodshed ensuing.

THE East Ham Local Board have represented to the Barking Sanitary Authority the desirability of having an infectious diseases hospital, suggesting a combination for the purpose.

THE Mary Fletcher Hospital of Burlington, Vermont, receives nearly $200,000 by bequest of Miss Mary A. Fletcher, who has just died in that city. The bequest comprises nearly her whole estate.

THE Royal Zoological Society of Ireland will, during the visit of H.R.H. the Prince of Wales, give a conversazione at the Royal College of Surgeons in Ireland, by permission of the Council of the latter institution.

HOSPITAL SUNDAY for Chatham and neighbourhood is fixed for April 19th. The ministers of more than sixty churches and chapels have promised to have collections. The Secretary is the Rev. D. Cooke, Vicar of Brompton.

THE "Sydney Morning Herald" states that the prize of £100, offered last year by the New South Wales Linnæan Society for the best essay on "The History of the Bacillus of Typhoid," is again announced as open to competition upon the same conditions as before.

TUNBRIDGE WORKHOUSE INFIRMARY.—The Local Government Board has authorised the Tunbridge guardians to erect a new infirmary at the workhouse, in accordance with the plans submitted, at a cost not exceeding £5000. Permission has been given to borrow the amount.

AT a meeting of the members of the Anthropological Institute held on the 24th inst., a paper was read by Mr. A. J. Duffield on "The Inhabitants of New Ireland and its Archipelago." Mr. R. Brudenell Carter and Mr. C. Roberts read papers on "Vision Testing."

THE sub-committee appointed to confer with the superintendent of the Aberdeen Infirmary respecting fresh regulations for the admission of visitors to that institution have reported in favour of the adoption of a system under which the friends of each patient would be supplied with a ticket to admit two, and which would be transferable. The recommendation was approved of.

ABERNETHIAN SOCIETY.—The annual general meeting of this Society for the election of officers took place on the 19th inst., the result of the ballot being as follows:—Presidents: Dr. E. W. Roughton and Mr. W. T. H. Spicer. Vice-Presidents: Mr. C. P. Crouch and Mr. A. Lyndon. Honorary Secretaries: Mr. F. W. Andrewes, and Mr. T. W. Gardner. Additional Committeemen: Mr. Colby and Mr. A. R. Farrar.

EXTENSION OF BOOTLE HOSPITAL.—A meeting of the working men of Bootle and neighbourhood was held on the 19th inst., to consider the best means of assisting in the effort being made for the extension of the borough hospital, by the founding and maintaining of a working men's ward. It was unanimously resolved, after some discussion, that funds should be raised sufficient to build and fit up such a ward.

ESSEX AND CHELMSFORD DISPENSARY AND INFIRMARY.—The committee of these institutions report that in the dispensary the cost of each patient has been about 6*s*., including the gratuities to the medical officers (25 guineas to each of the three), rates, taxes, and all other expenses; while the cost for drugs, &c., has been about 3*s*. per head. In the infirmary in 1884, 104 patients were admitted, and the expense of each patient has been about £3 17*s*.

WOLVERHAMPTON AND STAFFORDSHIRE GENERAL HOSPITAL.—On Tuesday, the 10th inst., the thirty-sixth annual report of the Wolverhampton and Staffordshire Hospital was submitted to the governors and subscribers. The number of in-patients treated during the past year has been 1899, as against 1731 in the preceding year, of which 962, as accidents or urgent cases, were admitted without tickets. The excess number consists of 53 adults and 115 children; and the total number includes 138 cases of fever or other infectious disease treated in the fever wards, 34 cases in the ward for the treatment of diseases of women, and 358 children under ten years of age treated in the children's ward. The average daily number of in-patients has been 116, the cost per head £2 16*s*. 8*d*., and the average stay in the hospital twenty-three days. The number of out-patients during the past year has been 11,597, showing an increase of 920 as compared with the preceding year, of whom 4155, as accidents or urgent cases, were treated without tickets. The cost per out-patient has been 1*s*. 8¾*d*. Forty-five patients have been sent to various convalescent institutions. The Hospital Saturday collections amounted to £2381 14*s*. 10*d*., an increase over last year of £132 12*s*. 7*d*., the largest amount collected in one year since the adoption of Hospital Saturday in 1874. The amount received from the Hospital Sunday collections was £697 18*s*. 9*d*., being an increase of £39 8*s*. 7*d*. over the year before. During the year, to meet a deficiency in the accommodation for women suffering from diseases requiring surgical treatment, two houses were taken upon lease and converted into a special hospital, to contain five patients, each to have the comfort and privacy of a separate room. The necessary outlay has been met by donations from generous friends.

SAD DEATH OF A "LADY DOCTOR."—A sad story comes from Chicago of the death of an English baronet's widow, who had been striving to keep herself by medical practice. She was a graduate of the Rush Medical College, but seems to have been unable to earn sufficient to live upon, and when she died suddenly of apoplexy she was looked upon as a pauper; some papers were, however, found which gave an indication as to her history, and enabled funds to be obtained by which her funeral expenses were met.

PRESENTATION.—Dr. William Richardson, of Shepherd's-bush, who has for many years practised in the district, having retired from the active duties of his profession at the beginning of the present year, was presented on Thursday evening, the 12th inst., with a testimonial by his numerous patients. It consisted of a silver gilt dessert service of four pieces, one centre-piece and three fruit dishes, richly ornamented, with a suitable inscription engraved upon them. A travelling writing-case handsomely fitted, and an illuminated album containing the signatures of the subscribers, accompanied the testimonial.

HOSPITAL FOR SICK CHILDREN.—The thirty-third anniversary festival of the Hospital for Sick Children, Great Ormond-street, was held on Wednesday night last, when Earl Rosebery presided. Amongst those present were Viscount Gort, Lord Aberdare, Sir James Paget, Rev. Robert Milner, Dr. Dickinson, and Dr. Gee. The speeches of the noble lord and of Sir James Paget were frequently applauded. Dr. Cheadle, the senior physician to the hospital, replied to the toast of the medical officers of the institution. During the evening subscriptions and donations amounting in the aggregate to £1267 were announced.

SELLING AN INFECTED BED.—A dustman has been summoned at the Yarmouth Police-court, under the 126th Section of the Public Health Act, for selling a bed which had been in contact with infectious disease. The Town Clerk prosecuted. A typhoid patient had died on the bed, which was very much stained, and the doctor in attendance said that it must be destroyed. The defendant was given a shilling to destroy it, but instead of doing so he sold it for a shilling to another man, who afterwards found means of reselling it for £1. The magistrate said it was a bad case, and fined the dustman £1 and costs or a month's imprisonment, and the man who received it from him £2 and costs or a month's imprisonment.

BOOKS ETC. RECEIVED.

BAILLIÈRE, TINDALL, & COX, London.

The Prevention and Treatment of Lateral Curvature of the Spine. By Mathias Roth, M.D. pp. 178, with Illustrations.

BERGMANN, J. F., Wiesbaden.

Ueber den Shock. Von Dr. G. H. Groeningen. Mit einem Vorwort von Dr. A. Bardeleben. S. 254.

CASSELL & Co., London, Paris, and New York.

Insanity and Allied Neuroses, Practical and Clinical. By Geo. H. Savage, M.D. pp. 544, with 10 Illustrations.

CHURCHILL, J. & A., London.

The Principles and Practice of Dentistry. By Chapin A. Harris, M.D., D.D.S. Eleventh Edition, Revised and Edited by F. J. S. Gorgas, A.M., M.D., D.D.S. pp. 994, with 3 full-page Plates and 744 other Illustrations.

The Microtomist's Vade-Mecum: a Handbook of the Methods of Microscopic Anatomy. By Arthur Bolles Lee. pp. 424.

Injuries of the Spine and Spinal Cord without apparent Mechanical Lesion and Nervous Shock, in their Surgical and

Medico-legal Aspects. By Herbert Page, M.A., M.C. Cantab. Second Edition. pp. 397.

Harveian Lectures on Intestinal Obstruction. Delivered before the Harveian Society in 1884, by Thomas Bryant, F.R.C.S. pp. 52.

CONSTABLE, T. & A., Edinburgh.

Portraits of the High Officers and Professors of the University of Edinburgh at the Tercentenary. Drawn and Etched by Wm. Holl, A.R.S.A. pp. 283, with 49 Portraits.

FANNIN & Co., Dublin.

The Student's Botany. By E. M. Cosgrave, M.D. pp. 93.

HIRSCHWALD, A., Berlin.

Die Wanderleber und der Hängebauch der Frauen. Von Dr. Leopold Laudau. S. 170, mit 23 Holzschnitten.

KEGAN PAUL, TRENCH, & Co., London.

Bacillary Phthisis of the Lungs. By Prof. Germain Sée. Translated and Edited by W. H. Weddell, M.R.C.S. pp. 234, with Plates.

LAUPP'SCHEN, H., Tübingen.

Die Verdauungs krankheiten der Kinder. Von Dr. Adolf Baginsky. S. 232, mit 3 Tafeln.

Mittheilungen aus der Chirurgischen Klinik zu Tübingen. Herausgegeben von Dr. Paul Bruns. Drittes Heft.

LEA BROTHERS & Co., Philadelphia.

A System of Practical Medicine. By American Authors. Edited by William Pepper, M.D., LL.D.; assisted by Louis Starr, M.D. Vol. I.: Pathology and General Diseases. pp. 1094, With Illustrations.

Topographical Anatomy of the Brain. By J. C. Dalton, M.D. In 3 Vols., profusely Illustrated with Diagrams and Tinted Plates.

LEA'S SON & Co., Philadelphia.

Doctrines of the Circulation. By J. C. Dalton, M.D. pp. 295.

LEWIS, H. K., London.

A Handbook of the Theory and Practice of Medicine. By F. T. Roberts, M.D., B.Sc., F.R.C.P. Sixth Edition. pp. 1012, with Illustrations.

A Practical Treatise on the Diseases of the Ear. By D. B. St. John Roosa, M.D., LL.D. Sixth Edition, Revised and Enlarged. pp. 718, with Illustrations.

MASSON, G., Paris.

Traitement du Choléra. Par Prof. Georges Hayem. pp. 168.

PUTNAM'S SONS, New York & London.

Cocaine: its Use in Ophthalmic and General Surgery. By H. Knapp, M.D. pp. 87.

SHAW & SONS, London.

The Local Government and Public Health Orders. By R. Cunningham Glen, Barrister-at-Law. pp. 600, with Index.

SIMPKIN, MARSHALL, & Co., London.

The Ship Captain's Medical Guide. Compiled by Harry Leach, M.R.C.P. Ninth Edition, Revised by William Spooner, L.R.C.P.Lond., M.R.C.S. pp. 120. 1s. 3d.

SMITH, ELDER, & Co., London.

Manual of the Antiseptic Treatment of Wounds. By Watson Cheyne, M.B., F.R.C.S. pp. 151, with Illustrations.

SPON, E. & F. N., London.

Ten Years' Experience on Works of Intermittent Downward Filtration. With Notes on the Practice and Results of Sewage Farming. By J. Bailey-Denton. Second Edition, with Additions. pp. 108, with Charts.

VOGEL, F. C., Leipzig; WILLIAMS & NORGATE, London.

Ueber die Wirkung Moderner Gewehrprojectile insbesondere der Lorenz'schen Verlschmolzenen Panzer-geschosse auf den Thierischen Körper. Von Dr. B. von Beck. S. 88, mit 43 Tafeln in Lichtdruck.

Report of the Committee to Inquire into the Condition of the Bristol Poor.—Die Kindersterblichkeit en Budapest während der Jahre 1876-1881; von Josef Körösi.—Transactions of the American Ophthalmological Society.—The Metaphysical Aspect of Natural History; by Stephen Monckton, M.D.—Ueber den Einfluss der Wohlhabenheit und der Wohnverhältnisse auf Sarblichkeit und Todesursachen; von Dr. Josef Körösi. (Enke, Stuttgart.)—L'Hydrothérapie aux Bains de Champel; par le Dr. P. Glatz.—Catalogo Ufficiale degli Oggetti Esposito nel Museo d'Igiene di Torino.—On the Operative Cure of Hernia; by W. Dunnett Spanton, F.R.C.S.Ed.—The Penny Postal Guide.—Ellis's Irish Education Directory and Scholastic Guide for 1885. (Ponsonby, Dublin.)—Shepherd's First Aid to the Injured, Revised and Rearranged by Robert Bruce. Illustrated.—A Short Address delivered at the Manchester Medical Society by Walter Whitehead, F.R.C.S.E., F.R.S.Ed.—Bulletin de la Société Générale des Prisons, No. 1.—Water-supplies to Irish Towns; by C. 'A. Cameron, M.D.—Vaccination; a Paper read before the Medical Society of University College, London; by J. W. Carr, M.R.C.S.—The Unity of Matter; by G. T. Carruthers, M.A.—Catalogue of Maps and other Geographical Publications published by Edward Stanford.—The Weather of 1884 as observed in the Neighbourhood of London; by Edw. Mawley, F.R.Met. Soc. &c.—What is Gas? by G. A. Rowell.—Good Words, Sunday Magazine, for April.—Leisure Hour, Sunday at Home, Boys' Own Paper, Girl's Own Paper, for April.—Ventilation, Sewers, and Drains; by C. E. Creswell.—Contributions to Physiology; by Isaac Ott, M.D. Part VI.—On the Coca of Peru and its Immediate Principles; by J. L. W. Thudichum, M.D.

Medical Appointments.

Intimations for this column must be sent DIRECT *to the Office of* THE LANCET *before 9 o'clock on Thursday Morning at the latest.*

BASSETT, H. THURSTAN, M.B.Lond., has been appointed Surgeon to the Birmingham and Midland Skin and Lock Hospital, vice J. W. Taylor, F.R.C.S.Eng., resigned.

BRAMWELL, ERNEST, M.D.Aber., M.R.C.S., L.S.A.Lond., has been appointed Medical Officer to the Workhouse of the Tynemouth Union, vice J. W. Bramwell, resigned.

BROWNE, GEORGE HENRY, L.R.C.P.Ed., L.F.P.S.Glas., has been appointed Medical Officer of Health for the Brynmawr Urban Sanitary District, vice Skrimshire.

CHURCHILL, JOHN FOOT, L.R.C.P.Lond., M.R.C.S., L.S.A.Lond., has been reappointed Medical Officer and Public Vaccinator for the Second District of the Amersham Union.

EDWARDS, FREDERICK SWINFORD, F.R.C.S.Eng., L.R.C.P.Lond., has been appointed Assistant-Surgeon to St. Mark's Hospital for Diseases of the Rectum.

EVANS, JOHN, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Ely Schools, Cardiff Union, vice Sheen.

HUGHES, Mr. THOMAS, has been appointed Public Analyst for the Borough of Newport, Monmouthshire.

IRWIN, JAMES ROSS, L.R.C.P., L.R.C.S.I., has been appointed Medical Officer to the Workhouse, and to the Whitehaven and Preston Quarter District of the Whitehaven Union, vice Wilson, resigned.

JACKSON, THOMAS, L.R.C.S.Ed., L.S.A.Lond., has been appointed Medical Officer for the Holbeach North District of the Holbeach Union, vice Harper.

KEYWORTH, JOHN WHITE, M.D.Lond., M.R.C.S. (of Wellington, New Zealand), has been appointed Surgeon-Superintendent of the Napier Hospital.

MATHESON, FARQUHAR, M.B., C.M., has been appointed Honorary Aurist to the Royal Caledonian Asylum, Holloway, N.

MCGEAGH, JAMES PAUL, M.D., M.Ch.Q.U.I., has been appointed Medical Superintendent to the Mill-road Infirmary, West Derby Union.

PENRICE, DAVID SIMPSON, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer for the Fourth Norwich District and Boys' Home, vice T. W. Richardson.

PRIEST, J. DAMER, M.R.C.S., L.S.A.Lond., has been appointed Medical Officer of Health for the Urban Sanitary District of Waltham Holy Cross.

WALLER, CHARLES B., M.R.C.S., L.S.A.Lond., has been appointed House-Surgeon to the Rotherham Hospital and Dispensary, vice Garrard, resigned.

WILLIAMS, E. R., M.R.C.S., L.R.C.P.Lond., has been appointed Senior House-Surgeon to the General Infirmary, Macclesfield.

Births, Marriages, and Deaths.

BIRTHS.

LANGFORD.—On the 22nd inst., at Park House, East End, Finchley, the wife of Dr. Phineas Pitts Langford, of a daughter.

SILK.—On the 23rd inst., at Victoria House, Highgate-hill, N., the wife of J. Fredk. W. Silk, M.D.Lond., of a daughter.

WARWICK.—On the 18th inst., at Halesworth, Suffolk, the wife of Percy Warwick, L.R.C.P.Lond., M.R.C.S., of a daughter.

WIGMORE.—On the 15th inst., at Twerton-on-Avon, Bath, the wife of J. Wigmore, M.D., of a son.

MARRIAGES.

DIXON—AUSTEN.—On the 25th ult., at St. George's Church, Ramsgate, Walter Dixon, M.B., C.M., of Shepherd's Well, to Flora, daughter of the Rev. R. T. Austen, of Barfreston Rectory, Kent.

GOULD—LUSH.—On the 24th inst., at Regent's-park Chapel, by the Rev. W. Landels, D.D., of Edinburgh, and the Rev. G. P. Gould, M.A., of Bristol, Alfred Pearce Gould, M.S., F.R.C.S.Eng., of Queen Anne-street, W., to Florence, youngest daughter of the late Right Honourable Lord Justice Lush.

GUINNESS—MARKS.—On the 23rd inst., at St. Mark's, Hamilton-terrace, Thomas Archibald Guinness, M.R.C.S., of Bampton, North Devon, son of Arthur Hart Guinness, Esq., of Greville-place, Maida-vale, N.W., to Edith, younger daughter of H. Stacy Marks, Esq., R.A., of Hamilton-terrace, St. John's-wood.

DEATHS.

CAIRD.—On the 1st ult., at Hartwell House, Kiama, New South Wales, John Hay Caird, L.R.C.S.Ed., & J.P., second son of James Caird, Parskane, Cullen, Banffshire, aged 29.

COATES.—On the 25th inst., at Endless-street, Salisbury, William Martin Coates, F.R.C.S., aged 73.

FOULDS.—On the 12th inst., at Chesterfield, Samuel Foulds, M.R.C.S., L.R.C.P.Lond., Hon. Surgeon to the Chesterfield and North Derbyshire Hospital, aged 50.

JOHNSON.—On the 18th inst., William Henry Johnson, Surgeon, aged 66.

KINGSLEY.—On the 18th inst., at Church House, Stratford-on-Avon, Henry Kingsley, M.D., in his 67th year.

MASON.—On the 18th inst., Samuel Mason, Ext. F.R.C.P.L., M.R.C.S., F.R.G.S., of Lewisham High-road and Finsbury-circus.

MITCHELL.—On the 15th inst., at Rhynie, Aberdeenshire, Alex. Gordon Mitchell, M.B., C.M.Aber., aged 41.

TUCK.—On the 24th Jan., at Tambo, Queensland, Australia, John Tuck, M.R.C.S., aged 42.

N.B.—*A fee of 5s. is charged for the Insertion of Notices of Births, Marriages, and Deaths.*

METEOROLOGICAL READINGS.

(Taken daily at 8.30 a.m. by Steward's Instruments.)

THE LANCET OFFICE, March 26th, 1885.

Date.	Barometer reduced to Sea Level and 32° F.	Direction of Wind.	Dry Bulb.	Wet Bulb.	Solar Radiation Vacuo.	Max. Temp. Shade.	Min. Temp	Rain fall.	Remarks at 8.30 A.M.
Mar. 20	29·82	W.	43	41	...	61	35	...	Cloudy
,, 21	29·88	N.W.	45	42	...	48	42	...	Overcast
,, 22	29·84	E.	37	35	...	44	33	...	Snowing
,, 23	30·35	N.E.	37	35	...	43	32	·71	Cloudy
,, 24	30·37	E.	37	34	...	45	34	...	Cloudy
,, 25	30·36	S.W.	40	36	...	47	36	...	Hazy
,, 26	30·14	W.	42	40	...	49	39	...	Overcast

Medical Diary for the ensuing Week.

Monday, March 30.

ROYAL LONDON OPHTHALMIC HOSPITAL, MOORFIELDS.—Operations, 10.30 A.M. each day, and at the same hour.

ROYAL WESTMINSTER OPHTHALMIC HOSPITAL.—Operations, 1.30 P.M. each day, and at the same hour.

ST. MARK'S HOSPITAL.—Operations, 2 P.M., and on Tuesdays at the same hour.

HOSPITAL FOR WOMEN, SOHO-SQUARE.—Operations, 2 P.M., and on Thursday at the same hour.

METROPOLITAN FREE HOSPITAL.—Operations, 2 P.M.

ROYAL ORTHOPÆDIC HOSPITAL.—Operations, 2 P.M.

MEDICAL SOCIETY OF LONDON.—8.30 P.M. Mr. Walsham: On the Treatment of Caries of the Spine in the Upper Dorsal and Lower Cervical Region by a Combined Jacket and Collar of Porous Felt.—Dr. Woakes: On Necrosing Ethmoiditis, and its Relation to the Development of Nasal Polypus.

Tuesday, March 31.

GUY'S HOSPITAL.—Operations, 1.30 P.M., and on Friday at the same hour. Ophthalmic Operations on Mondays at 1.30 and Thursdays at 2 P.M.

ST. THOMAS'S HOSPITAL.—Ophthalmic Operations, 4 P.M.; Friday, 2 P.M.

CANCER HOSPITAL, BROMPTON.—Operations, 2.30 P.M.; Saturday, 2.30 P.M.

WESTMINSTER HOSPITAL.—Operations, 2 P.M.

WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

CENTRAL LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M., and on Friday at the same hour.

ROYAL MEDICAL AND CHIRURGICAL SOCIETY.—8 P.M. Adjourned Discussion on Cholera.

Wednesday, April 1.

NATIONAL ORTHOPÆDIC HOSPITAL.—Operations, 10 A.M.

MIDDLESEX HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.—Ophthalmic Operations on Tuesdays and Thursdays at 1.30 P.M.

ST. MARY'S HOSPITAL.—Operations, 1.30 P.M. Skin Department: 9.30 A.M., on Tuesdays and Fridays.

ST. THOMAS'S HOSPITAL.—Operations, 1.30 P.M., and on Saturday at the same hour.

LONDON HOSPITAL.—Operations, 2 P.M., and on Thursday and Saturday at the same hour.

GREAT NORTHERN CENTRAL HOSPITAL.—Operations, 2 P.M.

SAMARITAN FREE HOSPITAL FOR WOMEN AND CHILDREN.—Operations, 2.30 P.M.

UNIVERSITY COLLEGE HOSPITAL.—Operations, 2 P.M.; Saturday, 2 P.M. Skin Department: 1.45 P.M.; Saturday, 9.15 A.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 3 to 4 P.M.

OBSTETRICAL SOCIETY OF LONDON.—8 P.M. Specimens will be shown by Dr. John Williams and others.—Dr. Murphy: Sequel to a case of Ovariotomy.—Dr. John Williams: On the Circulation in the Uterus, with some of its Physiological and Pathological Bearings.—Dr. Bousquet: Note sur un cas d'Absence Totale de l'Utérus et d'Occlusion du Vagin.—Dr. W. H. Day: Case of Uterine Fibroid complicating Labour treated by Enucleation.

Thursday, April 2.

ST. GEORGE'S HOSPITAL.—Operations, 1 P.M.

ST. BARTHOLOMEW'S HOSPITAL.—Surgical Consultations, 1.30 P.M.

CHARING-CROSS HOSPITAL.—Operations, 2 P.M.

NORTH-WEST LONDON HOSPITAL.—Operations, 2.30 P.M.

Friday, April 3.

ST. GEORGE'S HOSPITAL.—Ophthalmic Operations, 1.30 P.M.

ROYAL SOUTH LONDON OPHTHALMIC HOSPITAL.—Operations, 2 P.M.

KING'S COLLEGE HOSPITAL.—Operations, 2 P.M.

Saturday, April 4.

KING'S COLLEGE HOSPITAL.—Operations, 1 P.M.

ROYAL FREE HOSPITAL.—Operations, 2 P.M.

Notes, Short Comments, & Answers to Correspondents.

It is especially requested that early intelligence of local events having a medical interest, or which it is desirable to bring under the notice of the profession, may be sent direct to this Office.

All communications relating to the editorial business of the journal must be addressed "To the Editor."

Lectures, original articles, and reports should be written on one side only of the paper.

Letters, whether intended for publication or private information, must be authenticated by the names and addresses of their writers, not necessarily for publication.

We cannot prescribe, or recommend practitioners.

Local papers containing reports or news-paragraphs should be marked.

Letters relating to the publication, sale, and advertising departments of THE LANCET *to be addressed "To the Publisher."*

M.R.C.S.—1. We think B, though perhaps within his strict rights in refusing to meet our correspondent, would have acted more properly in agreeing to a consultation.—2. A practitioner has a right, perhaps, as we have said, to refuse to meet another in consultation; but for doing so he should have very good grounds indeed, of which the chief must be moral grounds. Fine questions of age are not sufficient, young men and older ones having each their advantages, and being able to render each other and the patient different kinds of service.—3. If one practitioner refuses to meet another, the other is at liberty, if requested to do so, to take the case.—4. It would be returning evil for evil to refuse to do so.—5. Yes.

Puzzled.—Mr. Upcott Gill, Strand, London, publishes a "Guide to the Medical Profession."

"CARBOLIC OIL A REMEDY AGAINST MOSQUITOES."

To the Editor of THE LANCET.

SIR,—*A propos* the letter on the above subject in your last issue, I may say I have been in India a number of times and have had some experience of these troublesome insects, and have tried several remedies (so-called) upon myself and other Europeans, and among them carbolic oil, 1 in 15, which I verily believe rendered them more troublesome. For the very annoying after-itching, which sometimes comes on every night for a week or more, or until one has been out at sea a day or two, I tried mango juice and also concentrated solution of acetate of ammonia, which was recommended by a Calcutta chemist, but with slight effect. What mosquitoes really do dislike is cocoa-nut oil, which is decidedly useful, but has an objectionable odour. Ladies in India suspend a small sponge, with a few drops of oil of lavender, above the heads of their sleeping infants with some good effect.

Believe me, Sir, yours truly,

JOHN C. UNDERWOOD,

Ashford, Kent, March 24th, 1885. Ex-Surgeon, P. & O. Service.

To the Editor of THE LANCET.

SIR,—A glance at Section 488: 4 of the Medical Digest will show that carbolic oil (*vide* THE LANCET, p. 546) has long been a remedy against these annoying insects; and in the same section several other valuable hints are given. I am, Sir, yours obediently,

Boundary-road, N.W., March 21st, 1885. R. NEALE, M.D.Lond.

To the Editor of THE LANCET.

SIR,—May I add another suggestion to that of Dr. Hovell? A teaspoonful (or less) of paraffin oil or petroleum well shaken up with, say, a quart of water, and applied to the face, arms, and exposed parts, will prove a useful protective against mosquitoes, &c. It irritates some skins if used frequently. I am, Sir, yours truly,

Leeds, March 23rd, 1885. FRANCIS EDWARD CANE.

L.S.A.—The whole question of titles is in a somewhat vague state as regards the law. The use of the title of "Dr." is not warranted by the qualification L.S.A. "Surgeon-Accoucheur" is also unfitted to the qualification. But it is not likely to call forth any prosecution.

Cymro.—Dunglison's (Churchills). A smaller work is published by Kimpton, Holborn.

INSTRUMENT FOR REMOVING FALSE MEMBRANE.

To the Editor of THE LANCET.

SIR,—Perhaps you will kindly allow me to state that the instrument for removing false membrane after tracheotomy, described in your journal last week, was made for me, according to my directions, by Messrs. Ferguson and Co., 40 and 41, West Smithfield, E.C.

I am, Sir, yours faithfully,

Bernard-street, W.C., March 23rd, 1885. BERTRAND SHADWELL.

A FREAK OF NATURE.

MR. WILLIAM LAWLESS, H.B.M.'s Consul for Martinique, Guadeloupe, and its dependencies, has favoured us with a letter from Dr. Massias, describing a monstrosity which recently came under his notice. The post-mortem examination of the creature, which only lived ten minutes, demonstrated the existence of two brains, two cerebella, two hearts, two stomachs, two livers, four lungs, two bladders, two spleens, &c. The genital organs, also duplicated and well developed, were male. The urethral canals and the rectums were not obliterated. A great peculiarity of this being consisted in the presence of four ears, two of which were situated in, and attached to, the occipital suture. The features were regular, and the mouth, nose, and eyes normal. The parents presented no abnormality of conformation.

Student.—An unqualified assistant has no right to use the title of "Assistant-Surgeon." It is everybody's business to prosecute such a person—and therefore nobody's.

House Surgeon is not entitled to a fee if the patient died in the hospital.

AN UNUSUAL MISHAP IN THE TREATMENT OF CYSTIC GOITRE.

To the Editor of THE LANCET.

SIR,—During the treatment of a case of cystic goitre in this neighbourhood, an event occurred which has never happened to me before. It is an accident which may seriously hamper the successful issue of any case, and therefore I would report it.

The goitre was of moderate size, situated principally on the right side of the neck, but some portion of the swelling stretched across to the other side. On tapping the cyst, the interior proved to be composed, as was previously expected, for the most part of trabecular structure; but there certainly was not more than one cyst, for the cannula, after it had been passed in, could be freely moved to the limits of the enlargement. Rather more than three weeks after the cyst had been continuously discharging through the cannula, and had been evidently day by day becoming smaller, the diminution in its size ceased, although the discharge still passed freely. Now it was reported by the patient that some days the discharge almost entirely ceased, then suddenly commenced again, and was for some time very copious; that on those days on which the discharge lessened the swelling increased, and when the discharge reappeared the neck as quickly diminished to its former size. On particularly examining the patient's neck, I noticed that the cannula was on the opposite side of the trachea to that on which I had inserted it. Its passage across from the right to the left side had been so gradual that until I had a special reason for examining the patient's neck I had not noticed this change of position. After further examination it was evident that the greater bulk of the goitre was on the right side of the windpipe, and that its cyst cavity emptied itself by a channel which must pass across the trachea into the much smaller cavity which was on the left side, and into which the cannula passed. That this was so was distinctly proved by pressing with the fingers on the swelling which was on the right side, for immediately there was an increased flow through the cannula and a decrease in the size of the swelling. I had injected the cyst with tincture of perchloride of iron (3ii ad 3i). It is, I am sure from experience, immaterial whether the liquor or the tincture is used for the purpose of converting the cyst of a goitre into an abscess.

It may be remembered that an anonymous writer in your journal of Dec. 2nd, 1882, wrote as follows: "It may be useful to point out that the writer of the article on goitre in Dr. Quain's Dictionary of Medicine makes the same mistake in recommending the tincture." This writer, whom you so kindly stood sponsor for when he was in doubt whether he should put his real name or the pseudonym "Chirurgus" to his letter, sadly betrayed your journalistic trust in him by misleading your readers and the readers of the article on Goitre in Quain's Dictionary, by asserting positively that it was a gross mistake on the part of the writer of that article to recommend the use of tincture of iron as an injection in cases of cystic goitre instead of the liquor. I trust by this time, for it is now more than two years since "Chirurgus" wrote his letter, that he has found out the mistake he has made.

I am, Sir, yours faithfully,

Canterbury, March 18th, 1885. PUGIN THORNTON.

THE etters of *Mr. Weatherly* (Oxford), *M.B.Lond.*, and many other communications, are unavoidably held over till next week.

"CONSTANT TINCTURES."

To the Editor of THE LANCET.

SIR,—If the numerous alkaloids found in opium, for example (of which morphia, codeia, narceine, and narcotine are the principal), were relatively constant, then the addition of "crude drug or spirit" would be admissible for "standardising." As they are not so, I cannot see how the process which Messrs. Squire say they adopt can "standardise" the amount of these alkaloids; of course, this could be done, but not with the "crude drug." I have nothing more to say upon the matter, further than that I am surprised, and at the same time glad, to know that these tinctures, which are prepared with the *crême de la crême* of drugs, "are very little dearer than the common tinctures (only a few pence in the pound)."

I am, Sir, yours obediently,

Park-terrace, Regent's-park, March 23rd, 1885. R. WHITE, L.S.A.

MEDICAL ETHICS.

OUR opinion has been asked of the conduct of a member of a Medico Ethical Society in writing applications for the post of medical officer to clubs and provident societies held by other medical men. Our judgment is that the procedure is a very unusual one, and one that cannot be commended.

RESECTION OF THE KNEE-JOINT.

To the Editor of THE LANCET.

SIR,—The "Mirror of Hospital Practice" in your columns is of the greatest value, especially as a guide to what may be expected in the aftercourse of an operation. It should also be a guide to outsiders in private practice in methods of treatment. I am therefore surprised to see a careful account of an operation at St. Mary's Hospital, in your issue of March 14th, where resection was resorted to for the knee-joint of a girl only ten years of age. The account states that the child's limb was ankylosed firmly and in a useless position, and that after the operation the limb was two inches and a half shorter than the sound limb. We are also carefully told that the epiphysis of the femur was "almost entirely" removed, together with a slice of the head of the tibia. Now, we may suppose the child to be at present of average height for her age. If so, I leave it to you to judge how many inches off the ground the faulty limb will be when she has done growing. The result of the ankylosis will be atrophy of all the muscles. We are told, "there was wasting of the muscles of the limb," and what use such a limb will be to her as an adult I am at a loss to imagine. The foot will probably grow, and the patient will have a leg the length of that of a girl of ten (or, allowing for growth at the opposite ends of the femur and tibia, of about thirteen), with the foot of an adult. But, apart from such prognosis, what I should like to know is this: Are such operations to be held up as examples to general practitioners and those in charge of cottage hospitals?—I am, Sir, yours faithfully,

March 23rd, 1885. A. OGIER WARD.

*** Our correspondent will observe respecting the case about which he writes, that it was a question of restoring to usefulness a limb, the knee of which was ankylosed almost at a right angle and still presented signs of disease. Under the circumstances, we hold that the operation which was performed was the one best calculated to obtain such a result, by straightening the limb and at the same time removing lurking mischief. The whole of the epiphysis of neither bone was removed, so that growth can still go on at the line of junction with the diaphysis both above and below the line of section. The muscles of the limb were wasted, as a consequence of prolonged disease, and, as in other cases, will regain to a considerable extent their power. The shortening, two inches and a half, partly the result of atrophy of the bones, but chiefly the result of operation, will be found of very little inconvenience to the patient in the future, and was unavoidable. If our correspondent will turn to Holmes's System of Surgery, vol. iii., p. 764, he will find a case recorded where, in spite of seven inches' shortening after excision of the knee-joint, the patient was able to walk, with the aid of a high boot, thirty miles in the day.—ED. L.

Inquirer.—The qualifications L.R.C.P.E. and L.R.C.P.Lond. do not justify the use of the title "Dr." Whether a board of guardians can be "compelled" to be exact in its use of titles is another question. The gentleman whose title is so misstated should himself make the correction.

Messrs. Funk and Wagnalls.—We cannot extend our exchange list.

A MONSTROSITY.

To the Editor of THE LANCET.

SIR,—Two days ago, whilst driving out, my attention was directed to a notice posted outside a tent somewhat to the following effect:—"A boy with four arms and four legs, but one head." I immediately alighted to see this freak of nature, and this was briefly what I saw. A native lad twelve years old, bright and intelligent-looking, chewing betel, slim, but not wasted. From his abdominal parietes in front protruded a pendulous growth. There was no sulcus between it and the point of union to what I should describe as its carrier. On the left (relatively to the carrier), a shoulder presented, and from it two arms. A little lower down came the nates directed forwards with the anus. Turning the growth forwards there was a penis uncommonly like a piece of shrivelled parchment. The proprietor of the nondescript growth objected to my separating the nates, as the proceeding hurt him. The owner of this rare appendage said that both he and it micturated, but that he alone defecated. The boy would not consent to his genitals being examined. The entire mass was freely movable, and of the same temperature (normal) as the individual, and no bony connexion between the two could be made out.

As this case is unique, quite different from the Siamese Twins or the Double-headed Nightingale, I have thought it worth recording. As the abnormality purposes exhibiting in London, you will have an opportunity of testing more fully what I merely saw very cursorily.

I am, Sir, yours faithfully,

H. KIERNANDER.

Bombay, March 6th, 1885. Surgeon, P. & O. Service.

Mr. C. Harrington.—The examination in surgery of the Apothecaries' Society is held the week before that in medicine, and must be passed by those wishing to obtain the degree of Licentiate, unless the candidate can produce evidence of having passed an equivalent examination elsewhere, such as the Membership of the Royal College of Surgeons.

"SWEET SPIRITS OF NITRE."

To the Editor of THE LANCET.

SIR,—From a paragraph in THE LANCET of March 7th it seems that the Council of the Pharmaceutical Society has informed the Inland Revenue Office that the medicinal value of sweet spirit of nitre does not depend on the nitrite of ethyl it contains, and therefore the presence of a definite amount of this constituent is not essential to the purity of the drug. If this be the case the Council has, it seems to me, committed an error; it has given an opinion on a therapeutic subject, and this opinion is not in accordance with the medical knowledge of the present time. The compilers of the British Pharmacopœia indicated their views of the importance of nitrite of ethyl by introducing a purity test which shows, though imperfectly, the quantity of the constituent present in spirit of nitrous ether. The most recent investigations tend to show that the compilers of the Pharmacopœia were right in the view they took. Dr. Hay in 1883 proved that nitrite of ethyl is a powerful medicinal agent, and in the same year I showed that spiritus ætheris nitrosi has precisely the physiological influence which might be expected from the nitrite of ethyl it contains. Undoubtedly, spirit of nitrous ether contains other ingredients, such as aldehyde, paraldehyde, nitrate of ethyl, &c., but the value of spirit of nitrous ether can in no way be connected with the presence of small quantities of these materials.

It may be true that the public often, and medical men sometimes, prefer a spirit made after older formulæ and containing less nitrite of ethyl, because the flavour of such a spirit is more agreeable than that of the pharmacopœial preparation. It is absurd, however, to accept this as evidence that nitrite of ethyl is not an essential constituent in spirit of nitrous ether.

It may be contended that spiritus ætheris nitrosi and sweet spirit of nitre are not the same drugs and should not be tested in the same manner; but, as a fact, no distinction is drawn between them commercially. When a medical man orders a patient to take sweet spirit of nitre he means the spiritus ætheris nitrosi of the British Pharmacopœia, and when the public buy the drug for themselves they believe that they are obtaining the preparation ordered by medical men. If sweet spirit of nitre, which contains only a trace of nitrite of ethyl, is allowed to be genuine by the Board of Inland Revenue, it will come to pass that in future the medical profession will not be able to count on the efficacy of the spirit of nitrous ether which they order.

I am, Sir, yours truly,

Owens College, March 23rd, 1885. D. J. LEECH.

UNUSUAL CAUSE OF CONSTIPATION.

To the Editor of THE LANCET.

SIR,—Although rare in this country, such cases as the one described by Dr. A. H. Watkins are by no means infrequent in Australia and other fig-growing countries, where the fruit may be obtained cheaply. In England I was, on one occasion, called upon to treat a man, aged seventy-two, for diarrhœa, which had been preceded by constipation. He complained of much pain, and a sense of constant weight at the lower bowel, and frequent, but difficult, micturition. I explored the rectum, from which a large hard mass of fig-seeds, &c., was removed by the handle of a spoon and injections of warm water. The means of weighing it were not available, had I desired such accuracy, but the accumulation *in situ* could have weighed little short of a pound. The diarrhœa ceased without further treatment, but the rectum did not regain its usual power for several days. This case, and, doubtless, those recorded by British authors, arose from the free use of *preserved* figs, but I can discover no reason why the freshly gathered, *fully matured* fruit should not tend equally to the formation of such troublesome accretions, where the usual laxative effect is not produced.

I am, Sir, yours obediently,

March 24th, 1885. J. G. BRIDE.

CURIOUS HEREDITARY MALFORMATION OF THE FOOT.

To the Editor of THE LANCET.

SIR,—The following are cases showing an extraordinary tendency to hereditary malformation of the foot; and as I think an account of them will prove of interest to your readers, I send you a brief one.

William S——, labourer, aged seventy-seven, has six toes on the left foot; his son George S——, aged fifty, his grandchild, Jane B——, aged nine, and his two great-grandchildren, Henry and Edwin S——, aged respectively two years and six weeks, have each of them six toes on the left foot. It is not unusual to find a supernumerary toe, and it is rarely that operative interference is required in such cases; but in the case of the two children the father wished the toes removed so that their boots might fit better. I removed the toe of the child Edwin on the 18th inst., by amputation through the metatarso-phalangeal articulation, and found there was a perfect joint. The left foot was slightly broader than the right, and the toes were perfectly formed. It is curious that in all these cases the supernumerary toe has been on the left foot. All are now living near here.

I am, Sir, yours faithfully,

Bridgwater Infirmary, Somerset, March 23rd, 1885. CLIFTON STURT.

L.R.C.P. Lond.—It is a good principle not readily to believe a report concerning a brother medical man which is to his discredit. We should recommend our correspondent to call on the gentleman he names and ask exactly what he said, giving him meantime every credit for having acted honourably. If he really said what is attributed to him, our correspondent would be justified in asking that it should be either retracted or justified. It would certainly be very difficult to justify such language in regard to such treatment, and that after our correspondent's responsibility had ceased for a week.

Dr. G. B. Ferguson (Cheltenham).—The paper will appear very shortly.

"HOW TO CARRY, UNAIDED, AN INSENSIBLE MAN."

To the Editor of THE LANCET.

SIR,—In reply to your correspondent "R. N. R.," I beg to suggest the following method:—Turn the individual upon his face, with the arms extended in a line with the body. Raise the trunk until he be in a kneeling position. Place yourself under him, so that his stomach rests on your right shoulder. Pass your right arm between the thighs and behind his right thigh. With your left arm draw his left hand forwards under your left, and grasp the wrist with your right hand; then raise yourself to an erect position. If you can obtain assistance in this operation, so much the better; or if there be a bed or table upon which the subject may be placed, he will be the more easily raised, or, rather, you will more easily raise yourself and burden. By this method the weight falls directly on your shoulders. The person carried cannot slip forwards, as you have his hand grasped from behind; nor can he slip backwards or off the shoulder, as your arm is over the thigh. The left arm is disengaged. Or, by reversing the operation, he may be carried on the left shoulder, in which case the left arm is passed behind his left thigh and his right hand grasped from behind. Your right arm is then free. This is very advantageous; as, for example, going down a ladder from an upper storey of a burning building where the rescued one is overcome by smoke, or where the operator wishes to carry weapons, &c., off the field of battle. The situation of the subject as above described may not be devoid of its inconveniences; but that need not be considered in replying to "R. N. R.," nor in certain other cases, as apoplexy.

Here is another method which I have seen employed:—Seat the subject with the legs flexed on the thighs, and these flexed on the trunk; the head will then rest on the knees. Pass a broad continuous strap (a soldier's belt, for example) behind the thighs at the popliteal spaces and under his arms. Crouch down behind him, *dos à dos*, pass the strap over your forehead, and raise yourself. The strap should be short enough to allow the weight to fall upon the shoulders and upper part of your back while you are bent slightly forwards. The head may drop backwards; but, if so, it falls on the top of yours. The strap, being under his arms, prevents him from falling through. Both your arms are comparatively free. By means of this strap I have seen Indians carry 300 pounds in weight (a barrel of pork) farther than one probably would care to believe. I am, Sir, very respectfully yours.

March 23rd, 1885. BEAVER.

"HYDROCHLORATE OF COCAINE."

To the Editor of THE LANCET.

SIR,—Your correspondent, Mr. Symes, must have misunderstood my letter, which appeared in THE LANCET of March 14th. I merely suggested a tried remedy for cocaine solution when it became flocculent. Mr. Symes' statement refers more particularly to a preventive of flocculi; and he calls attention to Dr. Fenwick's suggestion in his letter which appeared in your issue of Jan. 31st—viz., the use of camphor-water. I have again read Dr. Fenwick's letter, to which Mr. Symes refers, but I fail to discover any mention of camphor-water or any other solvent for cocaine whatever. I therefore conclude Mr. Symes must either have read Dr. Fenwick's letter very imperfectly, or have not read it at all. I am, Sir, yours faithfully,

Sussex Eye Hospital, Brighton, March 28th, 1885. J. CHURCHYARD.

"ON SYNCOPE, AND A METHOD OF AVERTING IT."

To the Editor of THE LANCET.

SIR,—I very gladly acknowledge Mr. Benham's priority in pointing out the efficacy of applying heat to the head in cases of syncope. At the time of writing on the subject, I was not aware that the value of this method had been recognised by anyone. The fact is, I am almost completely cut off from the opportunity of consulting books of reference on medical subjects by the discourtesy of the Birmingham Medical Institute, a society which acts on the principle of hiding under a bushel whatever light it may have the good fortune to possess.

I am, Sir, yours obediently,

Birmingham, March 23rd, 1885. WILLIAM J. NOTLEY, M.D.

THE EXPLOSION AT SHORBURYNESS.

To the Editor of THE LANCET.

SIR,—I notice in THE LANCET of March 21st an account of those fatally wounded at the Shoeburyness explosion. In that account you leave out the name of Capt. Goold-Adams, who ought to have been included to make the list correct. My father was one of those wounded, and perhaps that is the reason I take particular notice of the mistake.

I am, Sir, yours truly,

CHAS. W. LOW, L.R.C.P. Lond., &c.

Powis Lodge, Vicarage-park, Plumstead, March 23rd, 1885.

B.A.—To reproduce in our columns the announcements would be to play into the hands of the advertisers, and would, we fear, not have the effect desired by our correspondent.

Competitor.—Our correspondent should write to the secretary of the Society, who will give him the information he requires.

INSOMNIA A CAUSE OF CONSTIPATION.

To the Editor of THE LANCET.

SIR,—I have recently had under observation the case of a young man suffering from slight eczema and pruritus ani, in which insomnia appears to have been a cause of constipation. The occurrence of constipation as a feature of atonic states of the neuro-muscular system is, of course, well known to the profession; but it is at first sight a little surprising to find that it may be brought on by a sleepless night. This, however, was repeatedly the case with the young man above alluded to, and the explanation doubtless is that insomnia intensifies the neurasthenia, and with it the lack of tone in the intestinal and abdominal muscles. In this instance the constipation disappeared, without the exhibition of purgatives, on the removal of the causes which prevented sleep. As constipation is frequently answerable for irritation and ulceration in the neighbourhood of the anus, it would probably be advisable always to inquire into the state of the nervous system when such a combination of symptoms presents itself. I am, Sir, yours faithfully,

F. R. WALTERS, M.D., F.R.C.S.

Moorgate-street, E.C., March 14th, 1885.

Mr. S. O. Eades, L.R.C.P. & S. Ed.—We learn, upon inquiry, that the Schedule has been in the meantime withdrawn.

"APPLICATION OF MIDWIFERY FORCEPS."

To the Editor of THE LANCET.

SIR,—Before me are a pair of forceps invented, or introduced to the profession, by Professor Hamilton of Edinburgh. They are, I think, what Mr. James MacMunn recommends in THE LANCET of March 7th. I used them for twenty-five years, until I retired from midwifery practice, and liked them well, although forceps blades had much improved in form and lightness in the interval. I would not have cared to trouble you with this note, did I not wish to ask whether young surgeons are using forceps too frequently, and whether they have found in forceps cases that recovery is less satisfactory than might be looked for in ordinary tedious cases? As a rule, patience is not without its reward in obstetrical practice. I am, Sir, yours truly,

Newcastle-on-Tyne, March 9th, 1885. J. CARRICK MURRAY, M.D.

Lambeth—The sum is not worth a legal process of recovery; and we think our correspondent was wrong in advancing it after specific instructions not to do so.

COMMUNICATIONS not noticed in our present number will receive attention in our next.

COMMUNICATIONS, LETTERS, &c., have been received from—Dr. Bristowe, London; Dr. S. Monckton, Maidstone; Surgeon-General Stewart, Lymington; Mr. Thomas Annandale, Edinburgh; Mr. Jas. Hall, Peel; Mr. J. G. Bride; Surgeon-Major Sargent, Bedford; Mr. A. E. Tanner, Tottenham; Mr. Churchyard, Brighton; Mr. T. Bond, London; Dr. Ferguson, Cheltenham; Mr. F. A. Lees; Dr. R. E. Dudgeon; Mr. H. Cartwright, London; Mr. F. W. Lowndes, Liverpool; Mr. Keay, Blairgowrie; Mr. C. Jones, London; Mr. T. W. V. Greene, Monte Video; Mr. Carslake, Clapham; Dr. Denison, Denver; Major-General Sir A. Clarke; Mr. R. J. Godlee, London; Mr. A. S. Kenny, London; Mr. Leverell, London; Messrs. Mathieson and Sons, London; Mr. Pugin Thornton, London; Mr. Bradshaw Smith, Burbage; Mr. Roger Williams, London; Mr. Elwood Lee, Philadelphia; Dr. Bruce Low, Helmsley; Mr. Jessett, London; Dr. T. F. Pearse, Haslemere; Dr. Notley, Birmingham; Dr. F. Semon, London; Dr. R. Neale, London; Mr. H. Peacock, Gloucester; Messrs. Street and Co., London; Mr. Ganning; Mr. Richards, London; Dr. Bramwell, Ealing; Messrs. Loeflund and Co., London; Mr. Russell, Liverpool; Messrs. Kröhne and Sesemann, London; Mr. Clark; Mr. Twyford, Hanley; Dr. Pernisch; Mr. Wilkes; Messrs. Cassell and Co., London; Dr. Courtin, Paris; Mr. Welch, Blackpool; Dr. Kiernander, Bombay; Dr. Johnstone, Portsmouth; Dr. Jas. Millar, Arbroath; Mr. Gem, London; Mr. F. E. Weatherly, Oxford; Dr. H. Snow, London; Dr. Fenton, Coventry; Mr. H. Campbell, London; Dr. J. Gairdner, Crieff; Dr. Aikman, Guernsey; Dr. Swift Walker, Hanley; Mr. Orchard, Kinguasie; Dr. Illingworth, Clayton-le-Moors; Mr. F. E. Cane, Leeds; Dr. Bloom, Vienna; Mr. Puleston, London; Mr. B. A. King, London; Dr. Dudley Buxton, London; Mr. Adams Frost, London; Mr. Henry Lee, London; Mr. Wiffen, Brighton; Mr. C. W. Low; Mr. Underwood, Ashford; Dr. J. J. Ridge, Enfield; Mr. E. White, London; Messrs. Smith and Son, Manchester; Mr. Evans, London; Mr. Gauss, Hayton; Mr. Clarendon; Messrs. Funk and Co., New York; Dr. O'Connor, Allandale; Mr. Parnell, Camden-town; Mr. Pixe, Rajpootana; Mr. C. Sturt, Bridgwater; Professor Anderson, Glasgow; Dr. M. Thomson; Mr. Hand, Ben Rhydding; Mr. Branson, Rotherham; Messrs. Buchan, Glasgow; Mr. St. Dalmas, Leicester; Mrs. Selwood, Hursley; Mr. Lewright, Cullen; Mr. Burgess, Manchester; Messrs. Uhlich, London; Mr. Wood, Belvedere; Mr. Scott, Manchester; Mr. Foy, Aberdeen; Mr. Owen, Tipton; Mr. Robinson, Middlesbrough; Mr. Watt, Hovingham; Messrs. Kegan Paul and Co., London; Mrs. Tillest, Dudley; Mr. Kirkby, Leeds; Messrs. Mackay, Edinburgh; Mr. Hall, Greenwich; Mr. Mosse; Messrs. Hammond and Co., Birmingham; Mr. Newstead, London; Mr. James, St. John's-wood; Messrs. Reynolds and Branson, Leeds; Dr. J. A. Andrews, New York; Mr. Lee Cogan, Northampton; T.; Beaver; Physician, West Brighton; L.R.C.P. Lond.; A Layman; R. W. D., London; Northern Medicus; M.R.C.S.; M.B.Lond.; Rector, Eccleston; A.B.; Saxon; H. B.; Late Assistant; Student.

LETTERS, *each with enclosure*, are also acknowledged from—Mr. Crossland, Dr. Vernon, Southport; Dr. Kerr, Halesowen; Mr. Higgs, Henley-on-Thames; Dr. Joshua, Enderley; Mr. Baker, Liverpool; Mr. G. R. Jordon, London; Dr. Evans, Cardiff; Messrs. Smith and Son, Birmingham; Dr. Thomas, Glasgow; Dr. Eberle, Thirsk; Mr. Bowkett, Queensland; Mr. Thomas, Pontypridd; Mr. Kerwood, Chichester; Mr. Bullock, Stradbroke; Dr. Leeson, Brighton; Messrs. Boulton and Paul, Norwich; Mr. Hunt, Alexandria; Dr. Duff; Mr. Bevan, Mumbles; Mr. Dresser, Darlington; Mr. Tweddell, West Hartlepool; Mr. Powie, Pontymister; Mr. Foulds, Chesterfield; Dr. Silk, Highgate; Dr. Hilliard, Aylesbury; Mr. Robins, Chester; Dr. Robinson, Bolton; Mr. Love, Leeds; Miss Jones, Opengates; Mr. Marsh, Hindley; Mr. Gill, Wigan; Dr. Baddeley, Newport; Mr. Branson, Rotherham; Mr. Johnson, Hampstead; Dr. Goodson, Stratford; Mr. Williams, Talgarth; Mr. Austin, Faversham; Mr. Abbott, Huddersfield; Mr. Palmer, London; Mr. Jones, Baldock; Mr. Woodrow, Stratford; Clerk, Aberdeen; Medicus, Bristol; Delta; L. T., Burnley; L. M.; B. B., Skipton; J. S., Wigan; Matron, Newark-on-Trent; M. H., London; F.S.A., Wye; Medicus, London; Neurosis; W. D., Camberwell; Celsus, Camberwell; H. G.; C. B., Rhondda; M.D., Brixton; C. H., Highgate; Beta; M.B., Kensington; Medicus; H., Leeds; D., Ashby-de-la-Zouche; C. E.

Sheffield Daily Telegraph, Aberdeen Herald, Cambridge Independent Press, Church of England Temperance Chronicle, Halifax Courier, Hairdressers' Chronicle, East Anglian Daily Times, Bedfordshire Express, Universal Benefactor, &c., have been received.

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